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E. EARLE VAILE

Sheen Lodge, Richmond Park,
22^d May, 1886.

Dear von Haast,

With your many cares &
correspondences I am not surprised
that you put a letter into a wrong
envelope; in returning the inclosed.
I add the pleasure with which my
Sister & self look forward to welcome
you and Madame von Haast to
our abode tomorrow -

Always truly yours'

Richard Owen.

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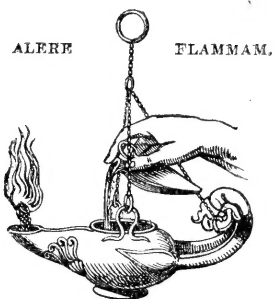
RESERVE OUTSIDE

MEMOIRS
ON THE
EXTINCT WINGLESS BIRDS OF NEW ZEALAND;
WITH AN APPENDIX
ON THOSE OF
ENGLAND, AUSTRALIA, NEWFOUNDLAND, MAURITIUS, AND RODRIGUEZ.

BY
RICHARD OWEN, C.B., F.R.S.
FOREIGN ASSOCIATE OF THE INSTITUTE OF FRANCE, ETC.

VOL. II. PLATES.

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EXTINCT WINGLESS BIRDS OF NEW ZEALAND.

SUMMARY OF THE PLATES,

WITH REFERENCES TO THE PAGES TREATING OF THEIR RESPECTIVE SUBJECTS.

PLATE I.

Apteryx australis: external and sexual characters (pp. 2-7).

PLATE II.

Apteryx australis: abdominal air-sacs (pp. 10, 11).

PLATE III.

Apteryx australis: abdominal viscera (pp. 11-15).

PLATE IV.

Apteryx australis: digestive, and urinary male organs (pp. 9-15, 24).

PLATE V.

Apteryx australis: digestive and respiratory organs (pp. 9-14, 22).

PLATE VI.

Apteryx australis: diaphragm and sanguiferous organs (pp. 15-20).

PLATE VII.

Apteryx australis: cranial, palatal, and hyoid characters (pp. 26-30).

PLATE VIII.

Apteryx australis: skeleton, side view (pp. 31-37).

PLATE IX.

Apteryx australis: trunk-bones, under or hæmal view (pp. 34-36).

PLATE X.

Apteryx australis: side view of superficial muscles (pp. 41-44).

PLATE XI.

Apteryx australis: side view of second layer of muscles (pp. 45-47).

PLATE XII.

Apteryx australis: deep-seated trunk-muscles (pp. 45-49).

PLATE XIII.

Apteryx australis: wing-muscles and deep-seated muscles of the neck (pp. 49-54).

PLATE XIV.

Apteryx australis: front view of the muscles (pp. 49-61).

PLATE XV.

Apteryx australis: female organs of generation (p. 64).

PLATE XVI.

Dinornis struthioïdes: cranium (p. 116).

PLATE XVII.

Dinornis giganteus and *D. struthioïdes*: cervical vertebræ (p. 97).

PLATE XVIII.

Dinornis struthioïdes and *D. dromioïdes*: dorsal vertebræ (p. 98).

PLATE XIX.

Dinornis and *Struthio*: under or hæmal view of pelvis (pp. 91-96).

PLATE XX.

Dinornis giganteus, *D. dromioïdes*, *D. didiformis*: pelvic bones (pp. 91-96).

PLATE XX A.

Dinornis didiformis: pelvis. *D. casuarinus*: metatarsæ (pp. 130, 131).

PLATE XXI.

Dinornis ingens, *D. struthioïdes*: femur (pp. 85–90).

PLATE XXII.

Dinornis dromioïdes: femur (p. 91).

PLATE XXIII.

Dinornis casuarinus, *D. dromioïdes*: femur (pp. 91, 130).

PLATE XXIV.

Dinornis didiformis: femur (pp. 86–89).

PLATE XXV.

Dinornis ingens, *D. didiformis*, *Aptornis otidiformis*: tibia (pp. 83–85).

PLATE XXVI.

Dinornis ingens, *D. didiformis*, *Aptornis otidiformis*: tibia (pp. 83–85).

PLATE XXVII.

Dinornis giganteus, *D. struthioïdes*, *D. didiformis*: metatarses (pp. 78–82).

PLATE XXVIII.

Struthio camelus, *Dinornis giganteus* (immature), *D. struthioïdes*, *D. didiformis*: metatarses (pp. 78–82).

PLATE XXIX.

Dinornis didiformis, *Struthio camelus*, *Apteryx australis*: osseous texture (p. 86).

PLATE XXX.

Outline restorations of *Dinornis giganteus*, *D. ingens*, *D. struthioïdes*, *D. didiformis*, and *Casuarius galeatus* (pp. 101–103).

PLATE XXXI.

Dinornis dromioïdes, *Dromaius novæ-hollandiæ*: skull (pp. 116–120).

PLATE XXXII.

Dinornis giganteus, *D. ingens*: cervical vertebræ (pp. 121–123).

PLATE XXXIII.

Dinornis giganteus: vertebra and ungual phalanx (pp. 122, 123).

PLATE XXXIV.

Dinornis ingens, *D. crassus*: dorsal vertebræ (pp. 123, 124).

PLATE XXXV.

Dinornis giganteus, *Rhea americana*, *Casuarus galeatus*, *Dromaius ater*, *Struthio camelus*, *Apteryx australis*: sternum (pp. 124–127).

PLATE XXXVI.

Dinornis giganteus: femur (128).

PLATE XXXVII.

Dinornis giganteus, *Struthio camelus*, *Dromaius novæ-hollandiæ*, *Ciconia argala*: tibia (pp. 128, 129).

PLATE XXXVIII.

Dinornis casuarinus: femur (131–133).

PLATE XXXIX.

Dinornis dromioides, *D. casuarinus*, *D. curtus*: tibia (pp. 131–133).

PLATE XL.

Dinornis ingens, *D. dromioides*, *D. casuarinus*, *D. crassus*, *D. curtus*: metatarses (pp. 130–134).

PLATE XLI.

Dinornis gravis: femur (pp. 352–354).

PLATE XLI A.

Dinornis gravis: femur (pp. 352–354).

PLATE XLII.

Dinornis gravis: tibia (pp. 350, 351).

PLATE XLII A.

Dinornis gravis: metatarses (pp. 348–350).

PLATE XLIII.

Aptornis otidiformis, *Otis tarda*: skull (pp. 174, 182, 186).

PLATE XLIV.

Dinornis, *Struthio*, *Nestor*: portions of skull (pp. 174, 178).

PLATE XLV.

Dinornis geranoïdes: skull (pp. 183, 184).

PLATE XLVI.

Palapteryx (*Dinornis*?): cranium (p. 185).

PLATE XLVII.

Notornis mantelli, *Porphyrio sultana*: skull (pp. 173–178).

PLATE XLVIII.

Palapteryx (*Dinornis*?), *Notornis mantelli*: sternum (pp. 196–199).

PLATE XLIX.

Dinornis robustus, *Struthio camelus*: bones of foot (pp. 187–193).

PLATE L.

Dinornis rheïdes, *Aptornis otidiformis*: bones of foot (pp. 185–195).

PLATE LI.

Dinornis dromioïdes, *Notornis mantelli*, *Apteryx australis*: bones of leg and foot (pp. 194, 199, 201).

PLATE LII.

Dinornis ingens: cranium (pp. 206, 207).

PLATE LIII.

Dinornis giganteus, *Palapteryx* (*Dinornis*, sp.): cranium (pp. 208–214).

PLATE LIV.

Dinornis gracilis, *D. struthioïdes*: femur and metatarses (pp. 215–219).

PLATE LV.

Dinornis gracilis, *D. struthioides*: tibia (pp. 218, 219).

PLATE LVI.

Dinornis elephantopus: femur, tibia, fibula (pp. 224–226).

PLATE LVII.

Dinornis elephantopus: metatarses and toe-bones (p. 227).

PLATE LVIII.

Dinornis elephantopus (immature): metatarses (p. 229).

PLATE LIX.

Dinornis elephantopus: skull (p. 233).

PLATE LX.

Dinornis elephantopus: side view of the skeleton (pp. 230–234).

PLATE LXI.

Dinornis elephantopus: front view of the skeleton; *Dinornis robustus*: front view of the bones of the right and left leg and foot (pp. 230–234, 237).

PLATE LXII.

Dinornis robustus: skull and atlas vertebra (pp. 152–169).

PLATE LXIII.

Dinornis robustus: skull (pp. 152–169).

PLATE LXIV.

Dinornis robustus: skull and scapulo-coracoid bone (pp. 152–169, 170).

PLATE LXV.

Dinornis robustus: skull (pp. 152–169).

PLATE LXVI.

Cnemiornis calcitrans: cervical vertebræ and sternum (pp. 239–242).

PLATE LXVII.

Cnemiornis calcitrans: vertebræ, pelvis, and humerus (pp. 240, 242).

PLATE LXVIII.

Cnemiornis calcitrans, *Aptornis otidiformis*, *Dinornis geranoïdes*: femur (pp. 243, 244).

PLATE LXIX.

Cnemiornis calcitrans: tibia and fibula (pp. 244, 245).

PLATE LXX.

Cnemiornis calcitrans, *Dinornis geranoïdes*: metatarses (p. 245).

PLATE LXXI.

Dinornis robustus: tendons and integument of foot (pp. 248, 249).

PLATE LXXII.

Dinornis elephantopus: sternum (pp. 254, 255).

PLATE LXXIII.

Dinornis rheïdes: sternum (pp. 255–260).

PLATE LXXIV.

Dinornis rheïdes: sternum (pp. 255–261).

PLATE LXXV.

Dinornis rheïdes: skull (pp. 271–277).

PLATE LXXVI.

Dinornis crassus: skull (pp. 266–271).

PLATE LXXVII.

Dinornis elephantopus: skull (pp. 262–266).

PLATE LXXVIII.

Dinornis casuarinus, *Dinornis giganteus*: skull (pp. 277–280).

PLATE LXXIX.

Dinornis maximus: femur and metatarsus (pp. 251-253).

PLATE LXXX.

Dinornis maximus: tibia (pp. 252, 253).

PLATE LXXXI.

Dinornis gravis: skull (pp. 280, 281).

PLATE LXXXII.

Dinornis ingens: skull (pp. 281-283).

PLATE LXXXIII.

Aptornis defossor: skull (pp. 291-302).

PLATE LXXXIV.

Aptornis defossor: skull, tibia, and fibula (pp. 291-302, 308, 311).

PLATE LXXXV.

Aptornis otidiformis, *Notornis mantelli*: pelvis (pp. 303, 306).

PLATE LXXXVI.

Aptornis otidiformis: pelvis; *Apt. defossor*: femur (pp. 303, 306, 308, 310).

PLATE LXXXVII.

Aptornis defossor, *Dinornis curtus*: metatarsus (p. 312-314).

PLATE LXXXVIII.

Aptornis defossor: pelvis (pp. 342-346).

PLATE LXXXIX.

Aptornis defossor: sternum (pp. 339-342).

PLATE XC.

Dinornis elephantopus, *Struthio camelus*: outlines of egg (p. 318).

PLATE XCI.

Apteryx australis, *Dinornis giganteus*: brain and cerebral nerves (pp. 321-327).

PLATE XCII.

Dinornis crassus, *Aptornis defossor*: tracheal rings. *Dinornis elephantopus*: gizzard-stones (pp. 327, 333).

PLATE XCIII.

Dinornis crassus: upper larynx. *D. rheides*, *D. elephantopus*, *D. robustus*: tracheal rings (pp. 330-332).

PLATE XCIV.

Aptornis defossor, *Ocydromus australis*: side view of skeletons (pp. 339-346).

PLATE XCV.

Cnemiornis calcitrans, *Cereopsis cinereus*: side view of skeletons (pp. 365-383).

PLATE XCVI.

Dinornis robustus: side view of skeleton (pp. 388-390).

PLATE XCVII.

Dinornis maximus: front view of skeleton, and of the Author of the present work, from a photograph (pp. 391-426).

PLATE XCVIII.

Dinornis maximus: sternum (pp. 415-419).

PLATE XCIX.

Dinornis maximus: restoration of the egg (p. 320).

PLATE C.

Dromornis australis: femur (Appendix, pp. 1-4).

PLATE CI.

Cnemiornis calcitrans, *Cereopsis cinereus*, *Tachyeres brachypterus*: skull (pp. 336-371).

PLATE CII.

Aptornis defossor, *Cereopsis cinereus*, *Tachyeres brachypterus*: vertebræ (pp. 372-375).

PLATE CIII.

Cnemidornis calcitrans: sternum and coracoid (pp. 375-377).

PLATE CIV.

Cnemidornis calcitrans, *Cereopsis cinereus*, *Tachyeres brachypterus*: wing-bones and metatarsæ (pp. 378-380).

PLATE CV.

Harpagornis moorei, *Circus pygargus*: pelvis (pp. 143-145).

PLATE CVI.

Harpagornis moorei, *Circus pygargus*: humerus and metatarsæ (p. 145).

PLATE CVII.

Harpagornis moorei, *Circus pygargus*: femur and tibia (pp. 146, 148).

PLATE CVIII.

Dinornis crassus: side view of skeleton (pp. 427-434).

PLATE CIX.

Dinornis rheides: side and front views of skeleton (pp. 427-434).

PLATE CX.

Dinornis gravis: side and front views of skeleton (pp. 385, 427-434).

PLATE CXI.

Dinornis didiformis: side and front views of skeleton (pp. 427-435).

PLATE CXII.

Dinornis gracilis, *D. casuarinus*: side view of skeletons (pp. 427-435).

PLATE CXIII.¹

Dinornis gracilis, *D. crassus*: front view of skeleton (pp. 427-435).

PLATE CXIV.

Dinornis maximus: section of sacrum. *D. crassus*: skull. Feathers and sesamoids of *Dinornis* (pp. 420-422, 431, 432, 440-446).

PLATE CXV.

Dinornis crassus: egg, and sternum of embryo (p. 320).

PLATE CXVI.

Dinornis ingens, *D. struthioides*, *D. dromioides*: foot-prints (pp. 451-453).

PLATE CXVII.

Dinornis ingens: egg (pp. 318, 319).

PLATE CXVIII.

Dromornis australis: distal end of tibia (Appendix, pp. 5-7).

PLATE I. (Appendix).

Alca impennis, *Uria grylle*: skeleton and skull (App. pp. 7-10).

PLATE II. (Appendix).

Alca impennis, *Uria grylle*: sternum, vertebra, humerus, femur, tibia, metatarsus (pp. 10-20).

PLATE I. (Supplement I.).

Didus ineptus: side view of skeleton (Suppl. pp. 1-29).

PLATE II. (Supplement II.).

Didus ineptus: oblique back view of skeleton (Suppl. pp. 1-36).

¹ Pls. CVIII.-CXIII. are from photographs transmitted to me by Dr. von Haast, F.R.S., of skeletons in the Museum of Christ Church, Canterbury.

PLATE III. (Supplement III.).

Pezophaps solitaria: metatarses (Suppl. pp. 30-36).

PLATE IV. (Supplement III.).

Pezophaps solitaria: side view of skeleton, male and female (Suppl. pp. 37-45.)

PLATE V. (Supplement III.).

Pezophaps solitaria: skull, male and female (Suppl. p. 37-48).

GEOLOGICAL MAP OF NEW ZEALAND.

For impressions of this Map I am indebted to the Government Geological Survey of New Zealand. On it are noted most of the localities at which the remains described in this Work have been found.

Fig. 1.



Fig. 3.



Fig. 2.

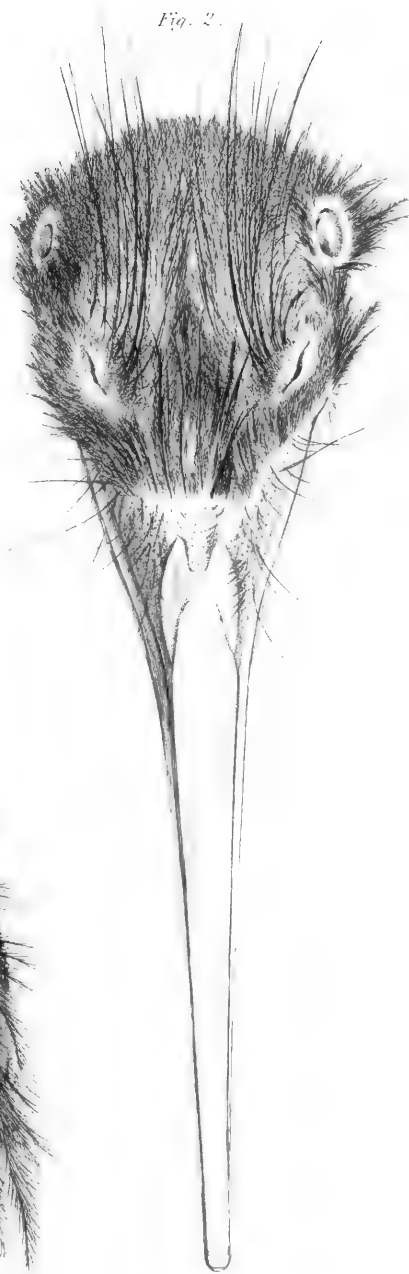


Fig. 4.

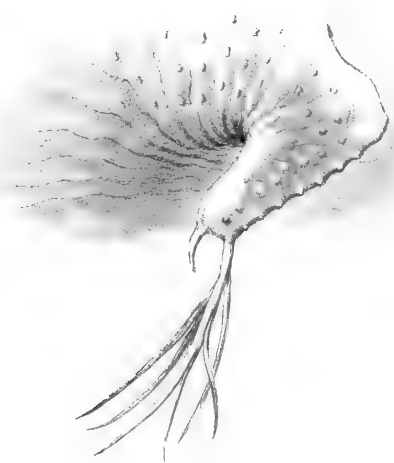


Fig. 5.



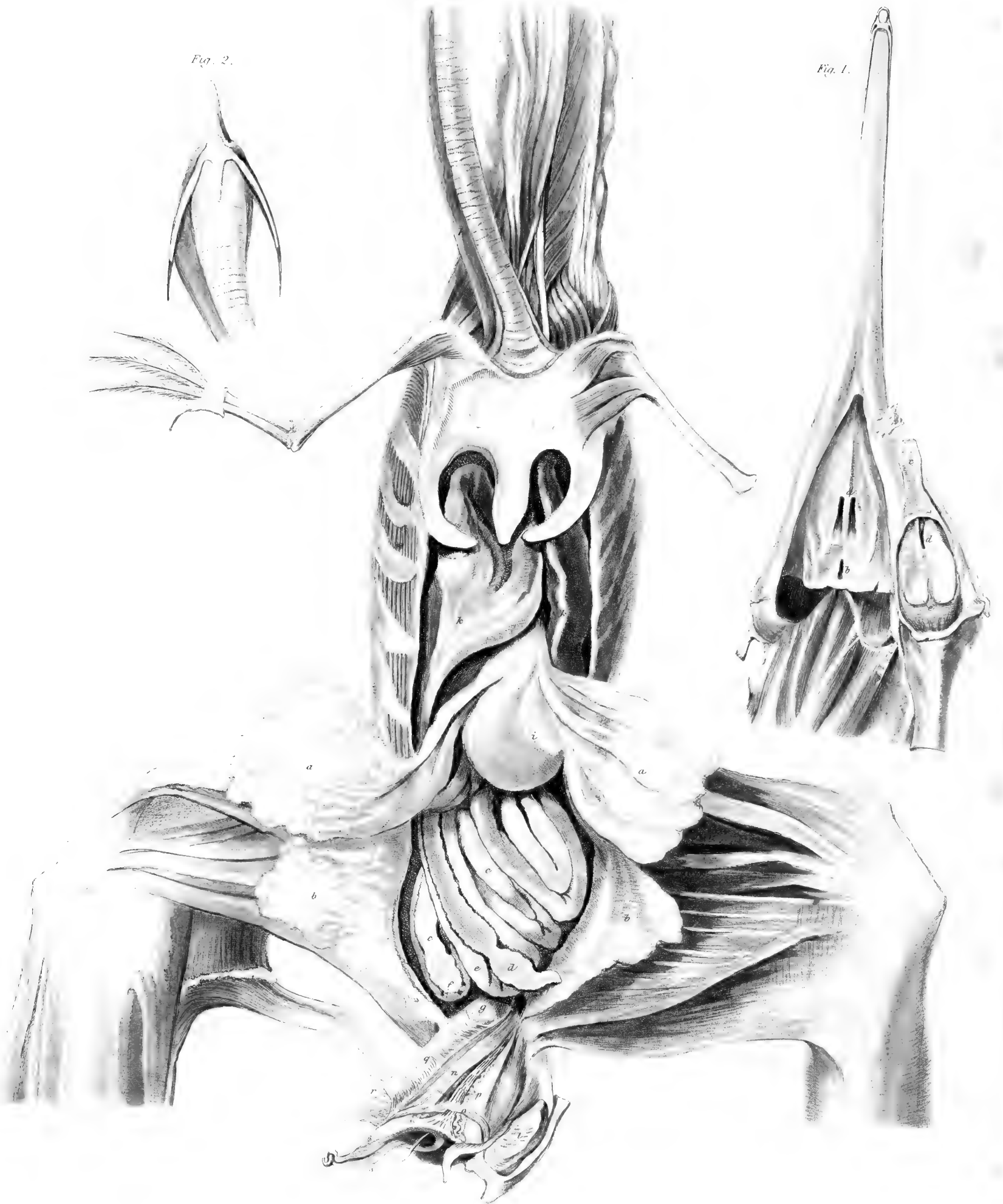


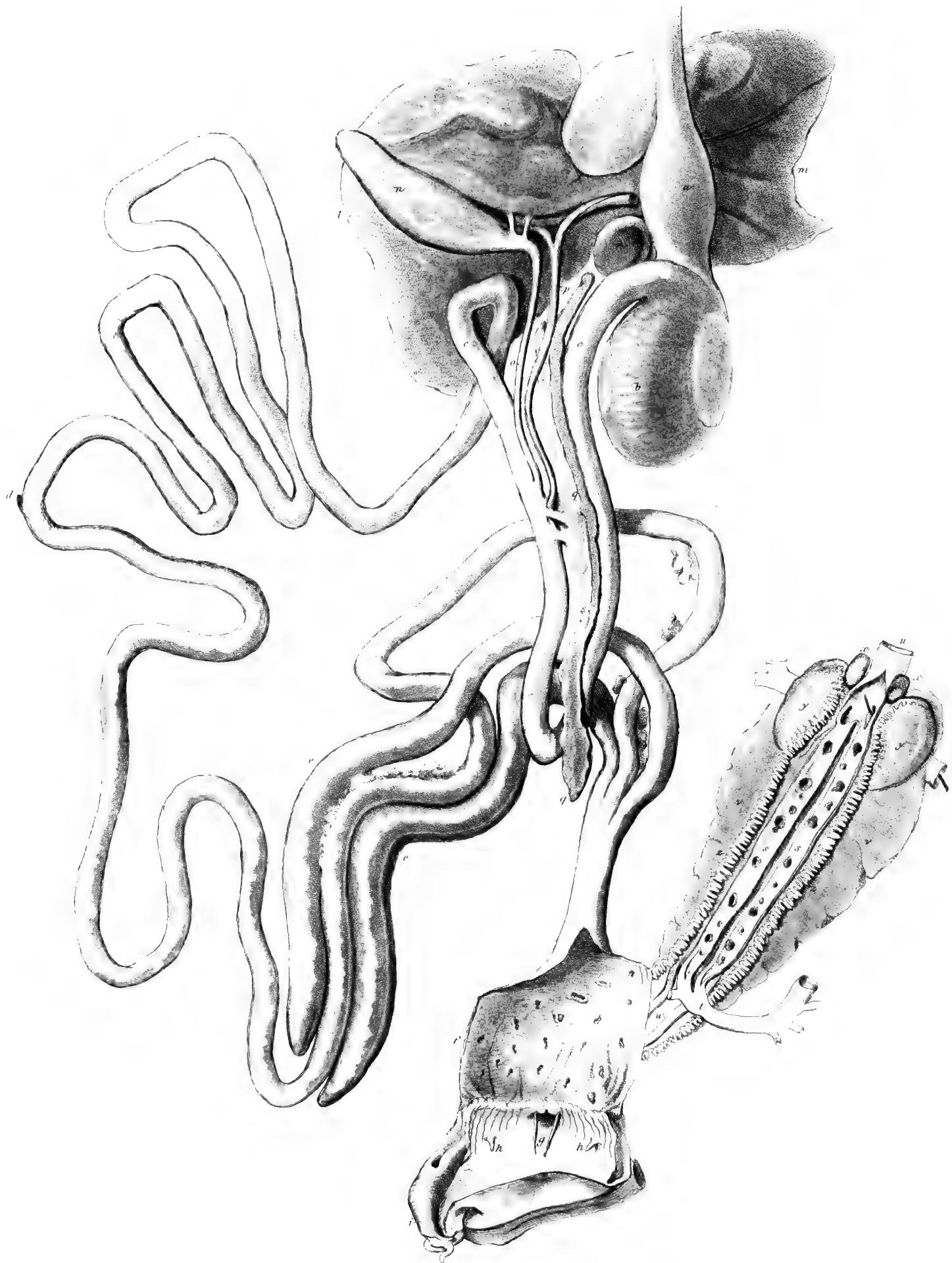
Apteryx australis

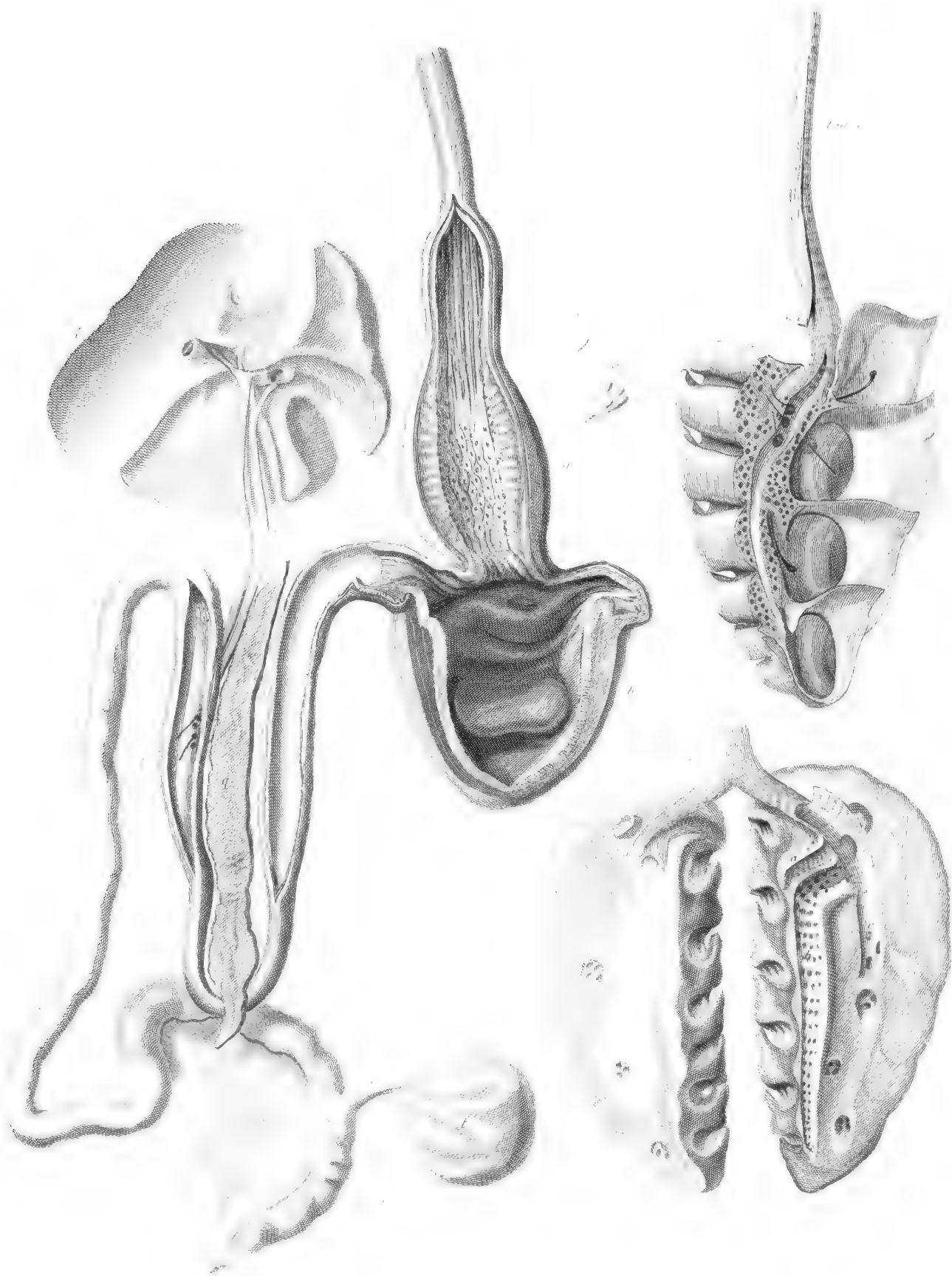
Fig. 3.

Fig. 2.

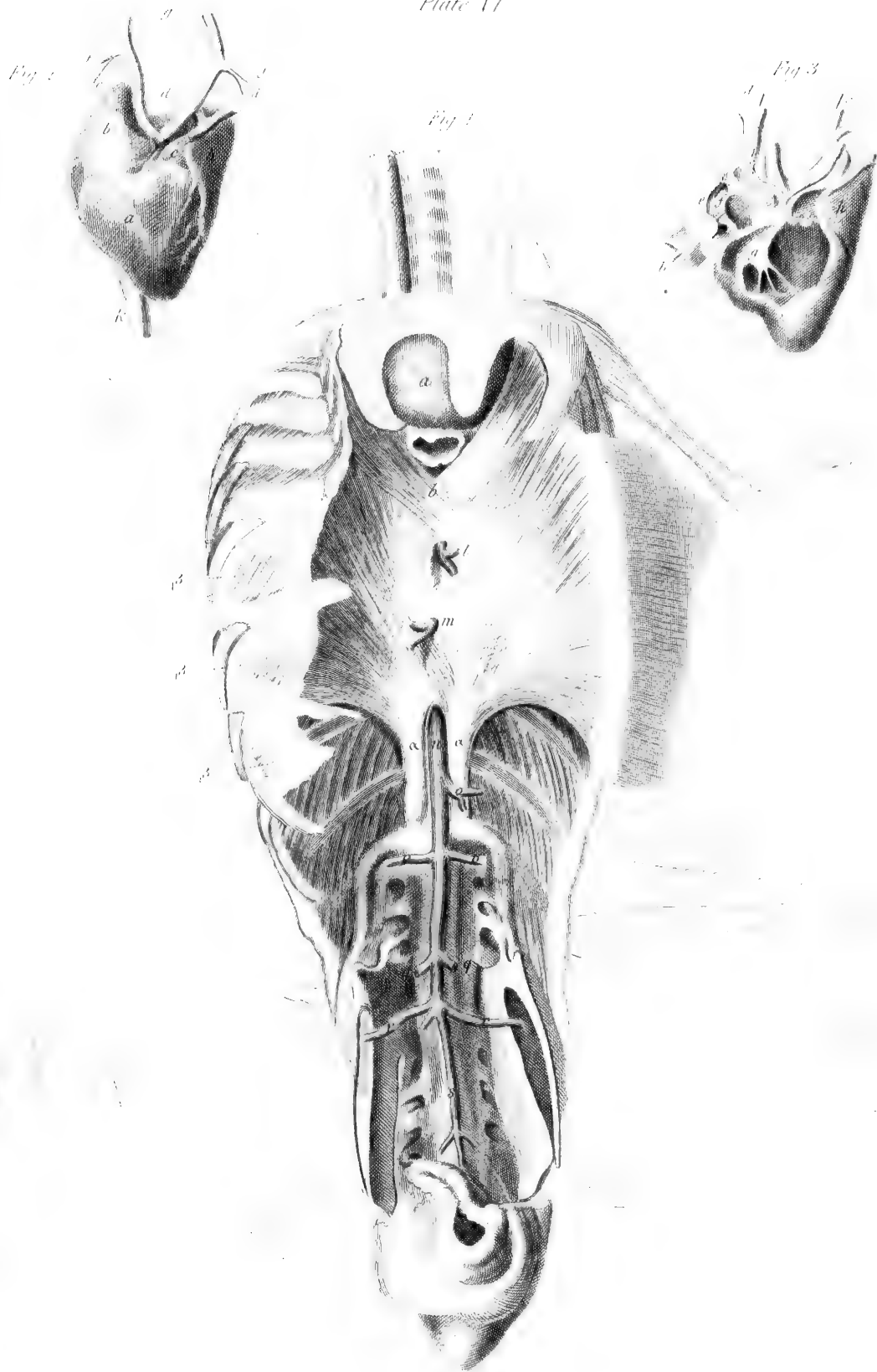
Fig. 1.







Aporosa australis.

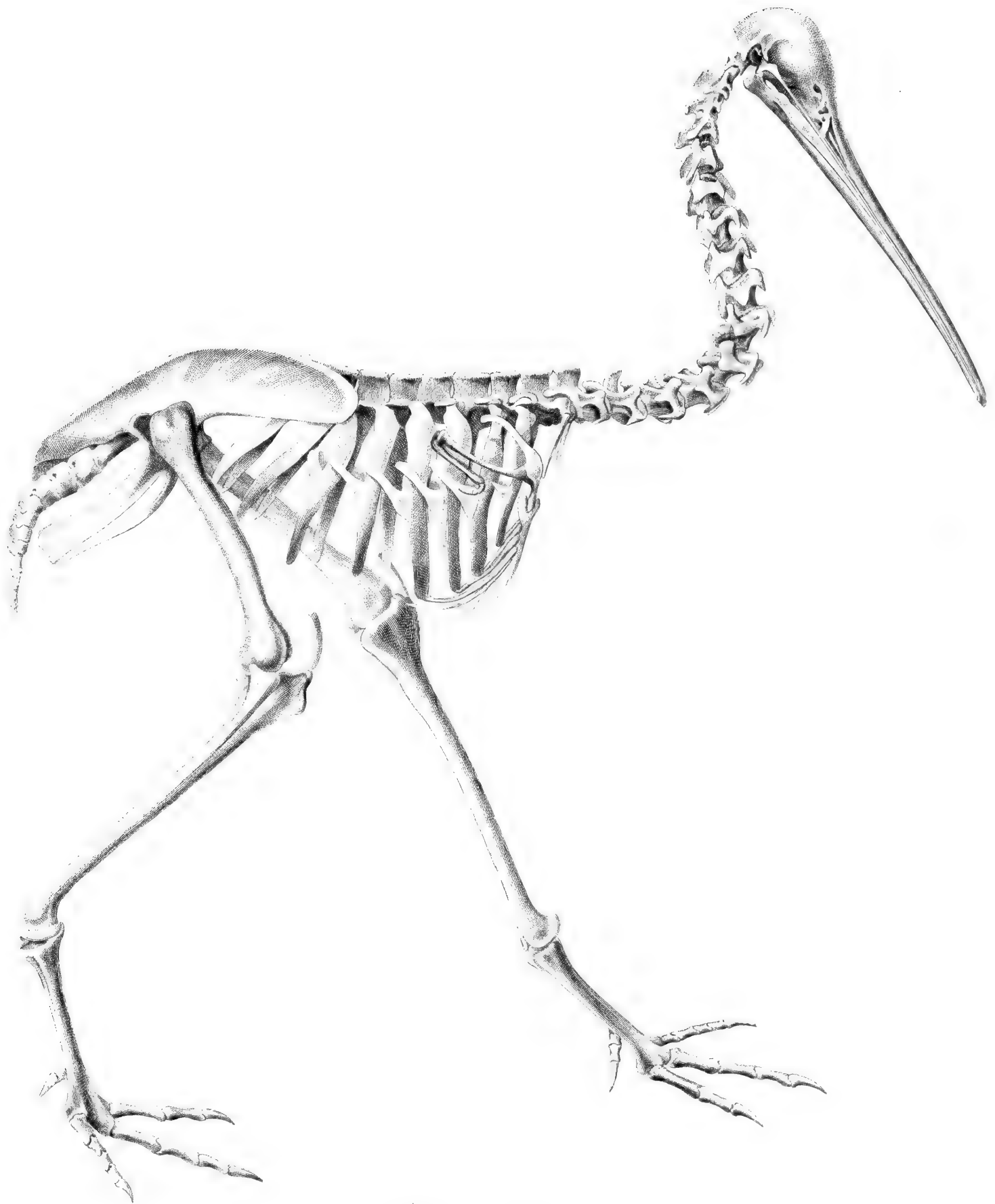


Apterura australis

PLATE



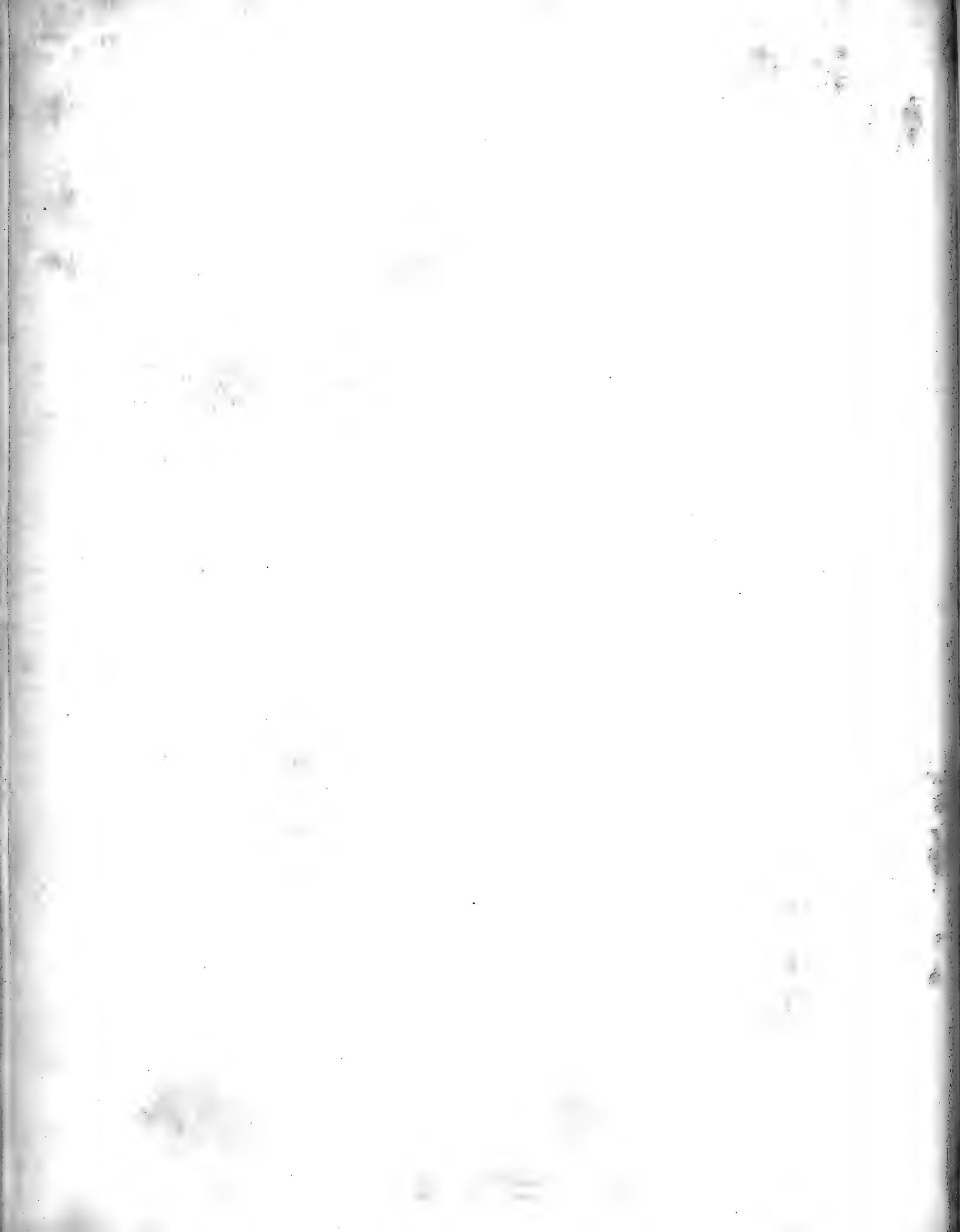
Fig. 1, 2, 5 3. Apteris. Fig. 3 & 4. This.



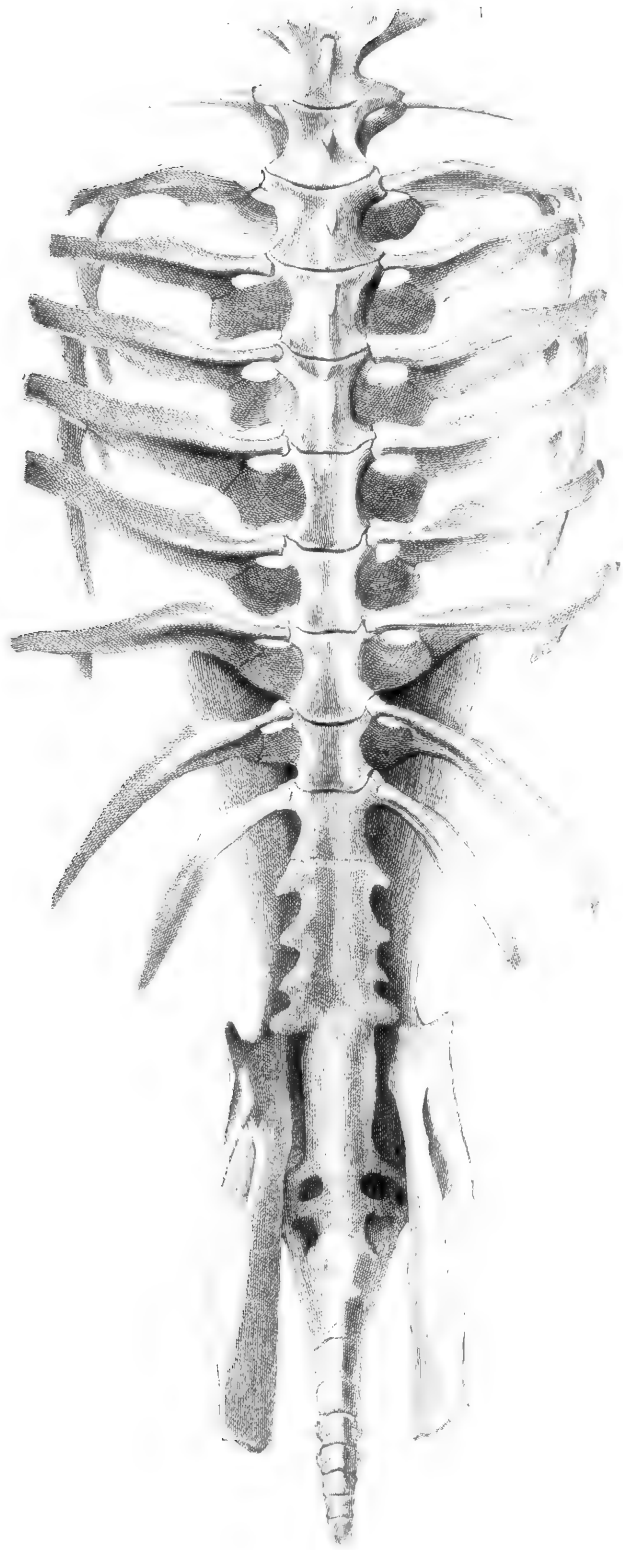
Spermophaga australis, mas.
1/2 nat. size.

H. Scharf del.

F. Steiner sculp.



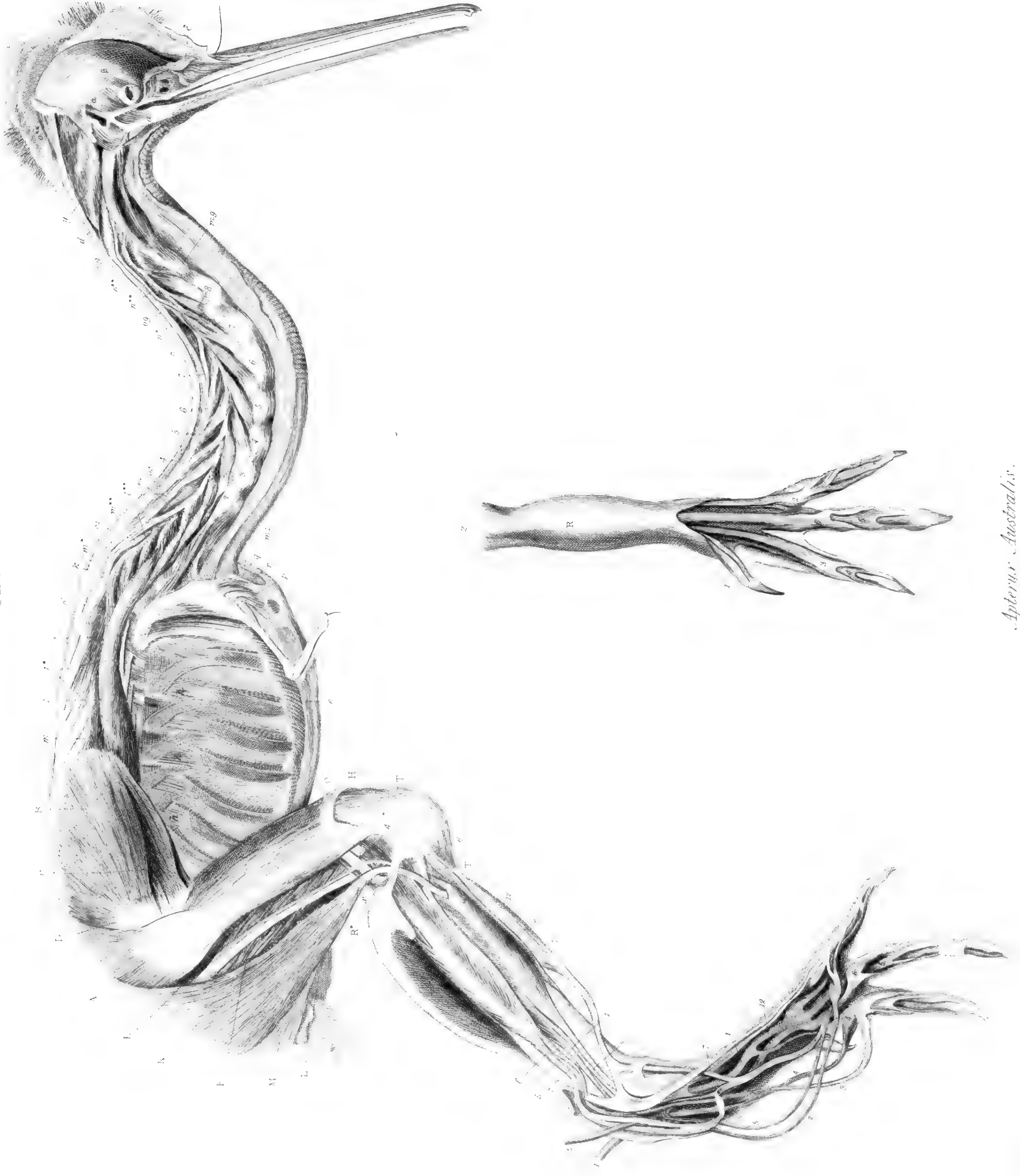
Pl. IX.



Apteryx australis.



Apteryx Australis.
Scale of the natural size.



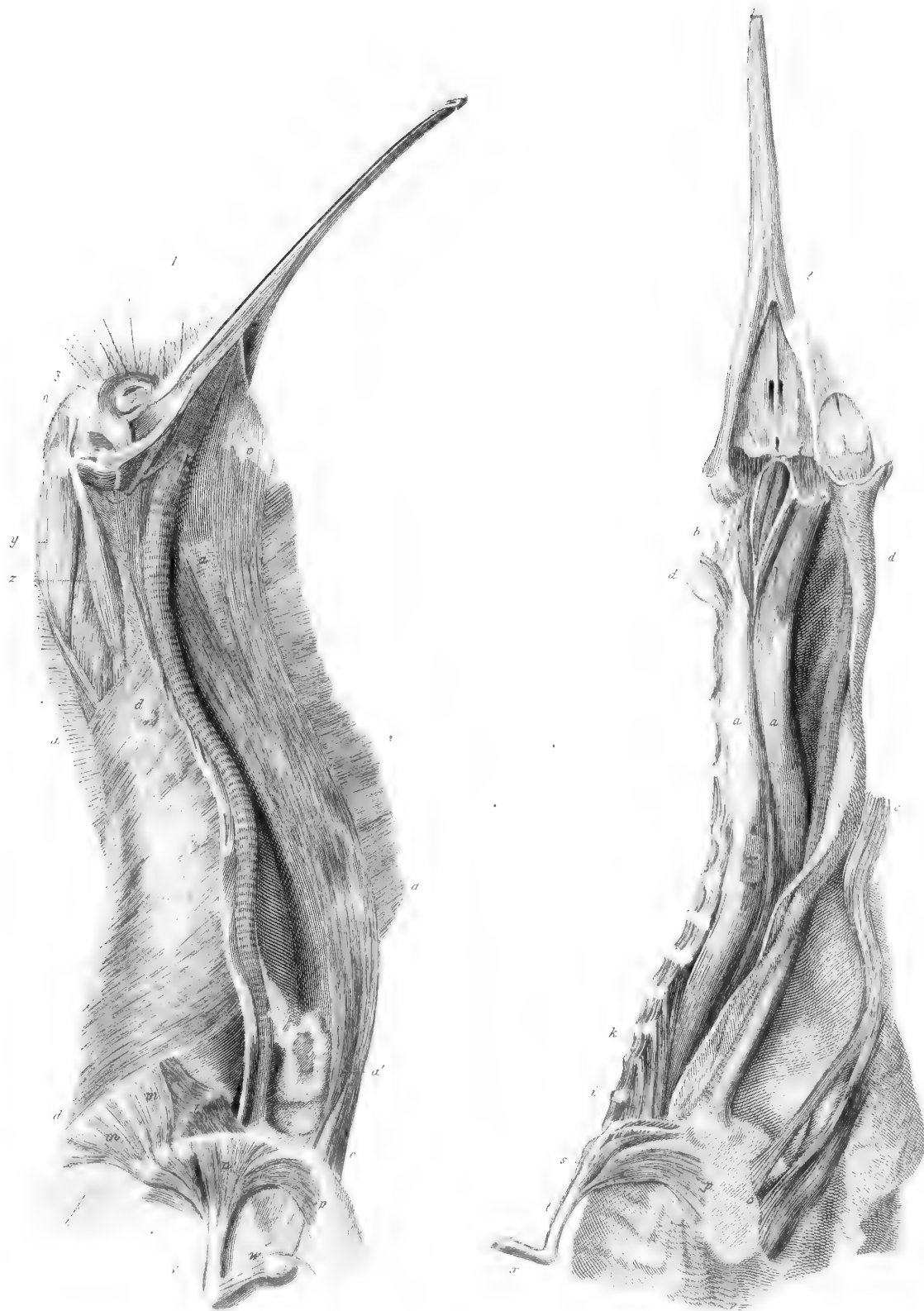
Apterurus Australis.

Scale 1/2 the natural size.



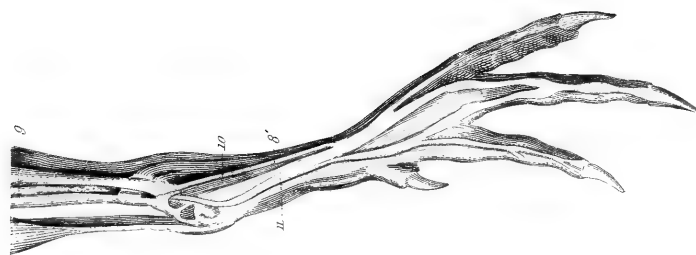
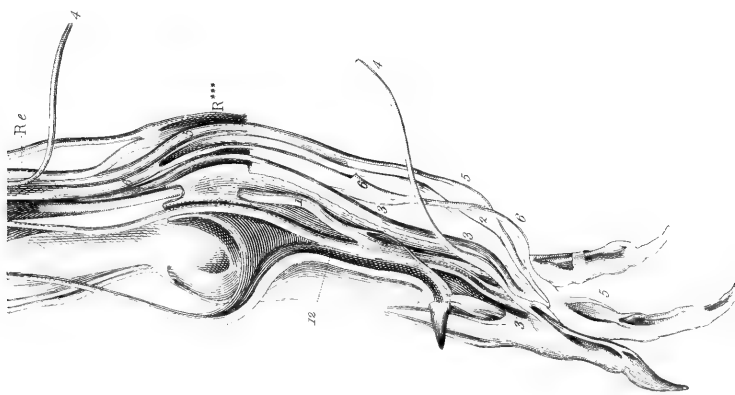
Apteryx Australis.

Scale of the natural size.



Apterix Australis.

Scale $\frac{1}{4}$ the natural size

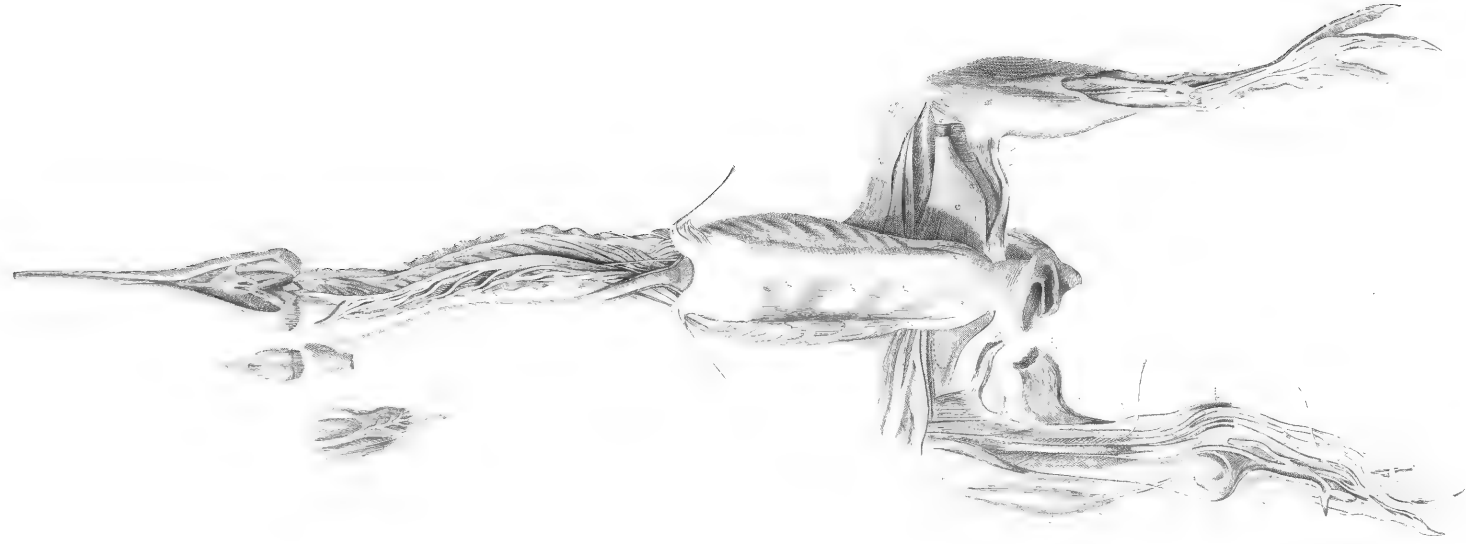


R. O. & W. Scharf, del.

Apteryx Australis.

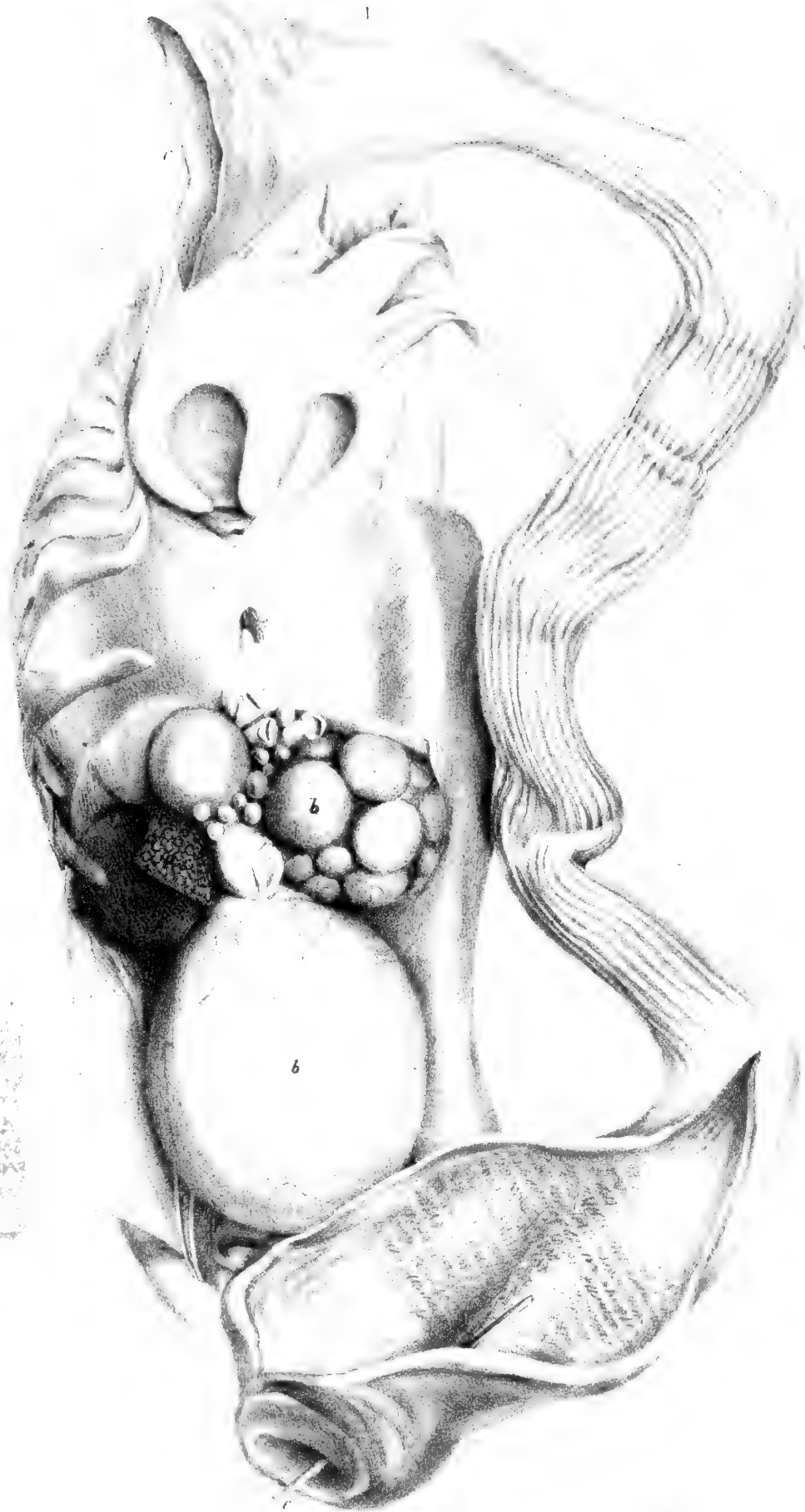
Scale $\frac{1}{4}$ the natural size.

J. Baillie, sc.



Aptenura - An. ch. ch. ch.
coll. of the An. ch. ch. ch.

1



6

2
The whole of the plant is covered with a fine, granular, or scaly texture, which is particularly evident on the large, lobed structure. The small, round fruits are clustered together, and the large, smooth fruit is shown in a separate view.

Stylidium australe

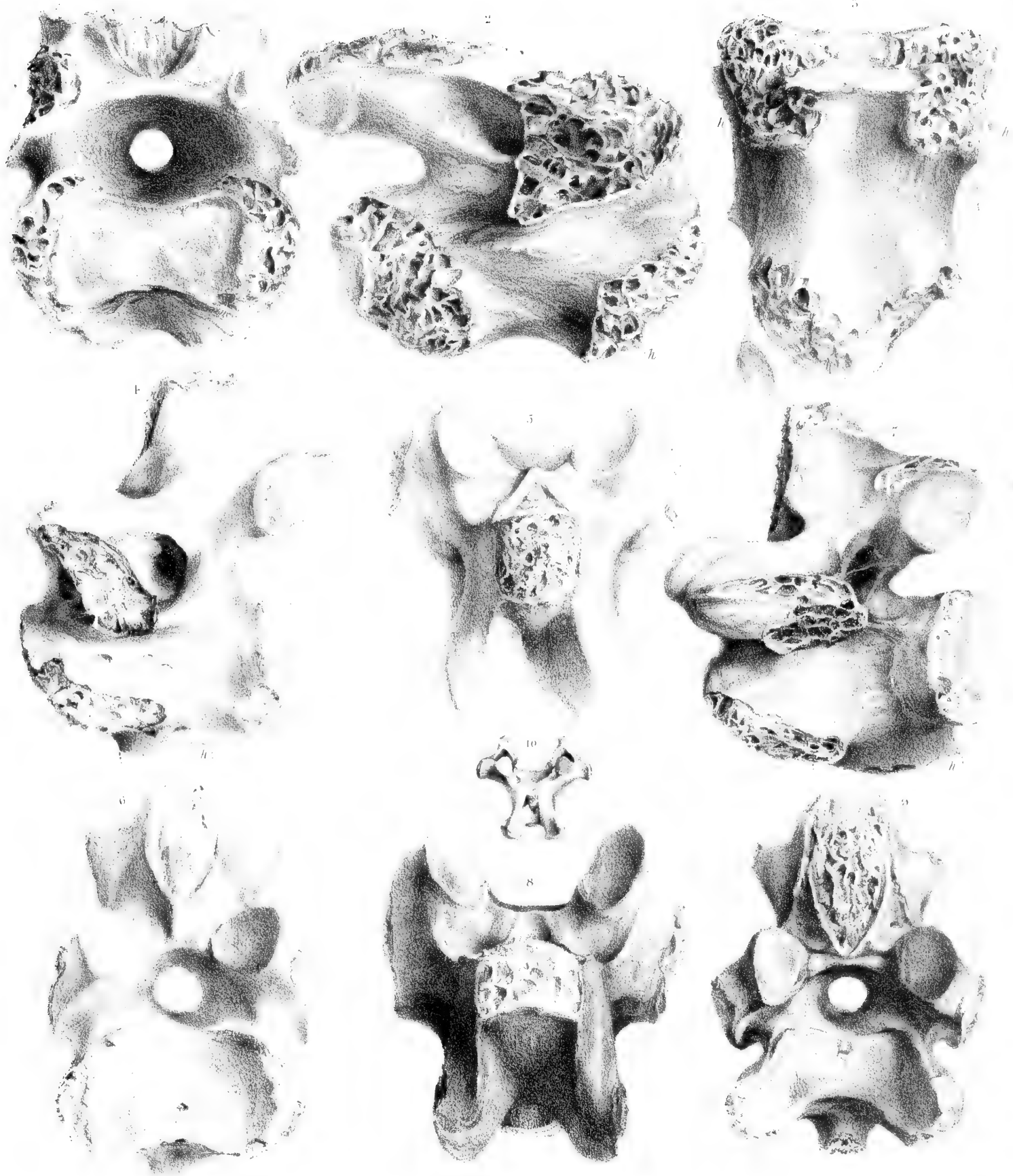
Stylidium australe



from National Zone

Day & Hughes Lith.^{rs} to the Queen.

4. 4 *Dinornis struthioides*. 5 *Didus ineptus*.

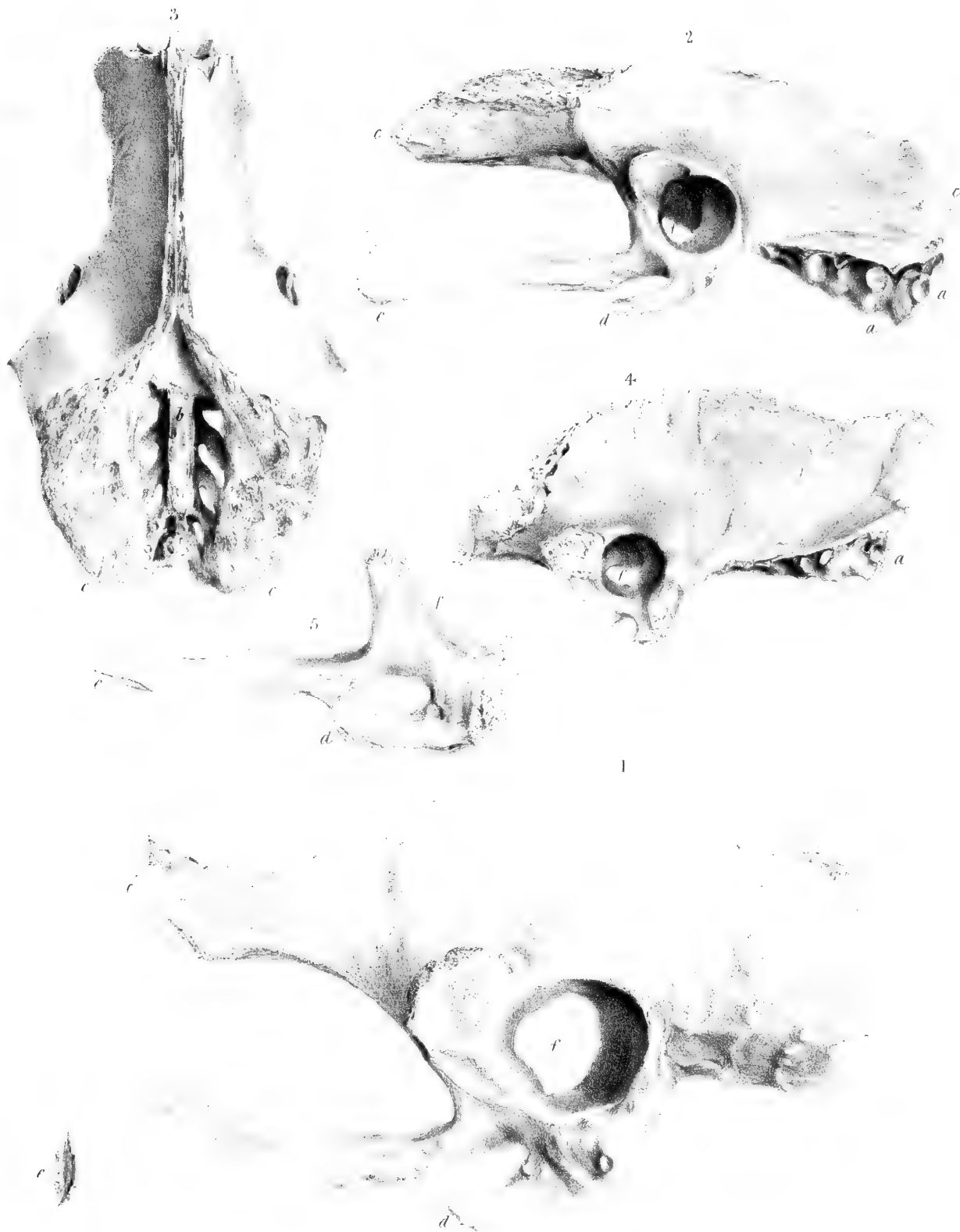




Phyllanthus var. *intercedens* (L.) Merr.

A. F. erleben, 2. m.

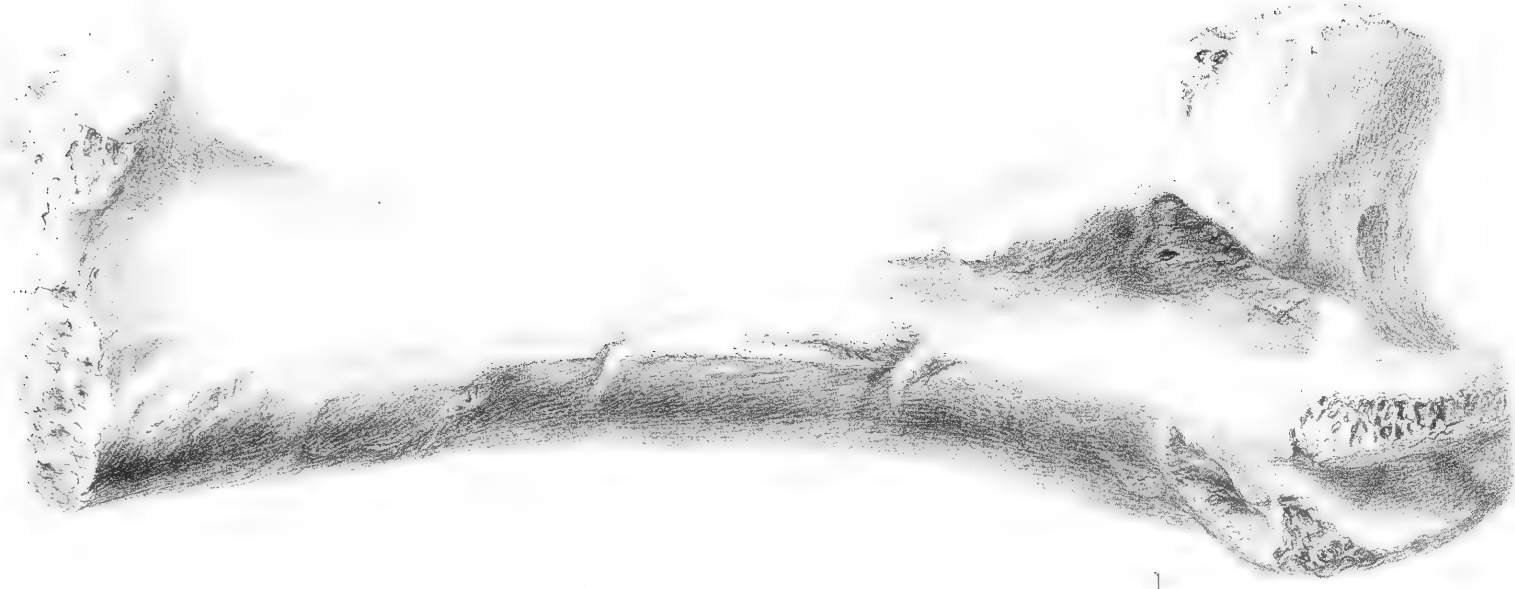
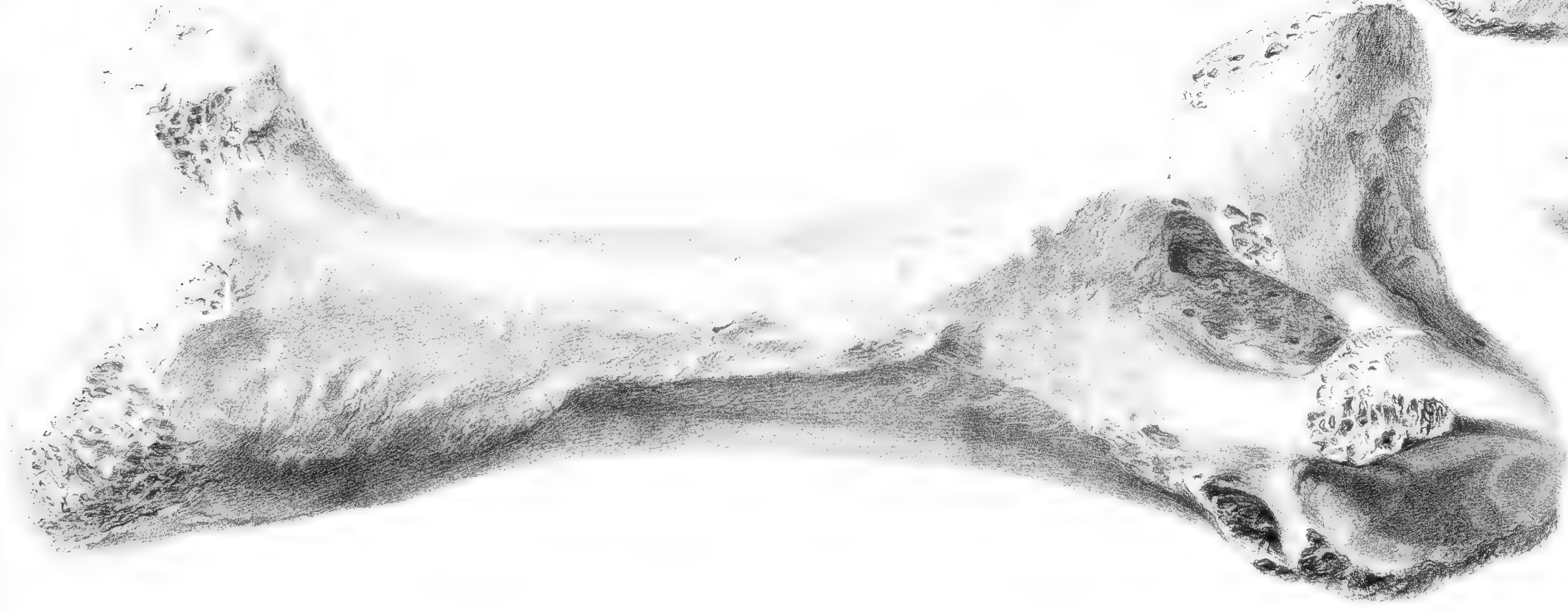






Taf. 8140.

Dinornis didorci



Ant. Scap.

Fig. 4

Fig. 5



Fig. 1.

collected by C. H. Muller and others.

Dinornis dromioides.



Vat. Sic.

1 *Dinornis struthoides*, juv. 2. *Din. dromicoides*.

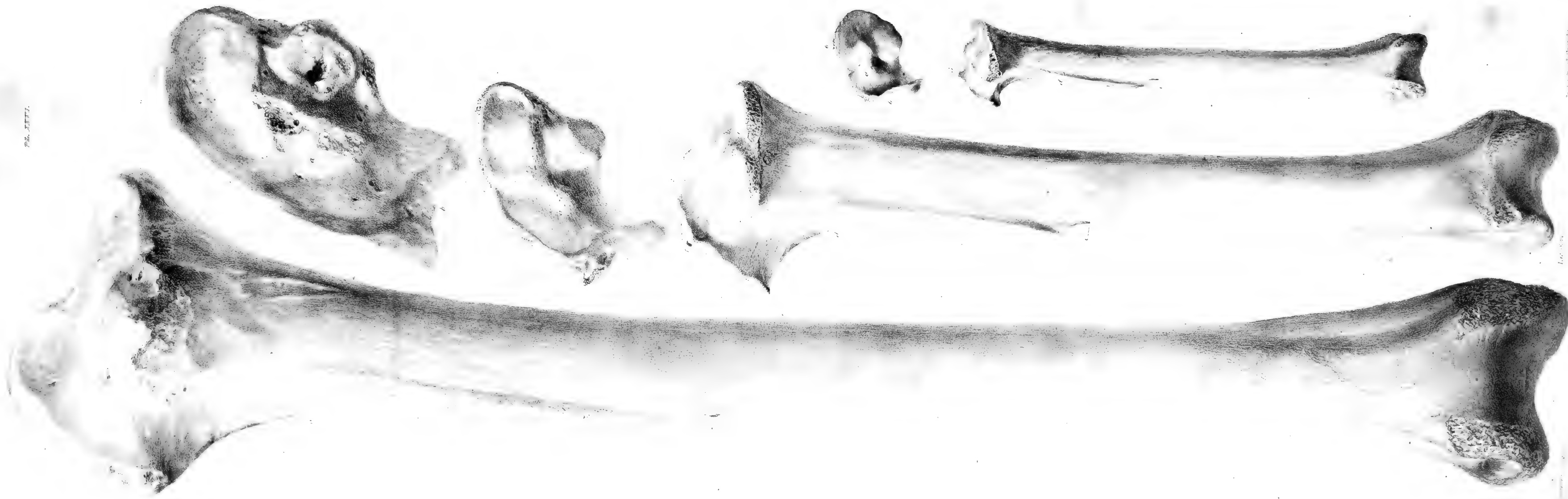


Dicernis didiformis.

From a skull by N. H.

Printed by C. F. Mandel





PL. LXXV.

Fig. 1.

Fig. 2.

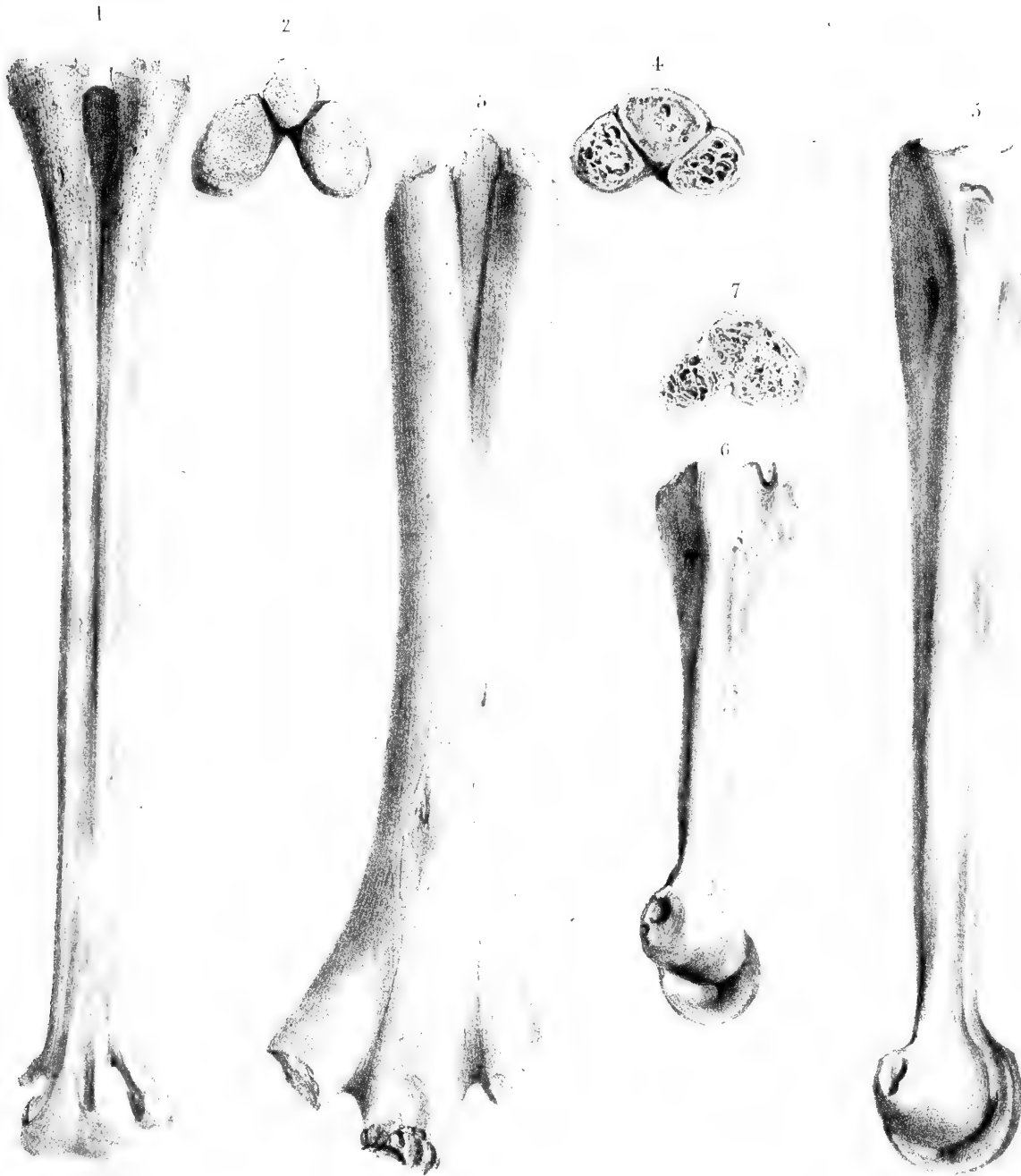


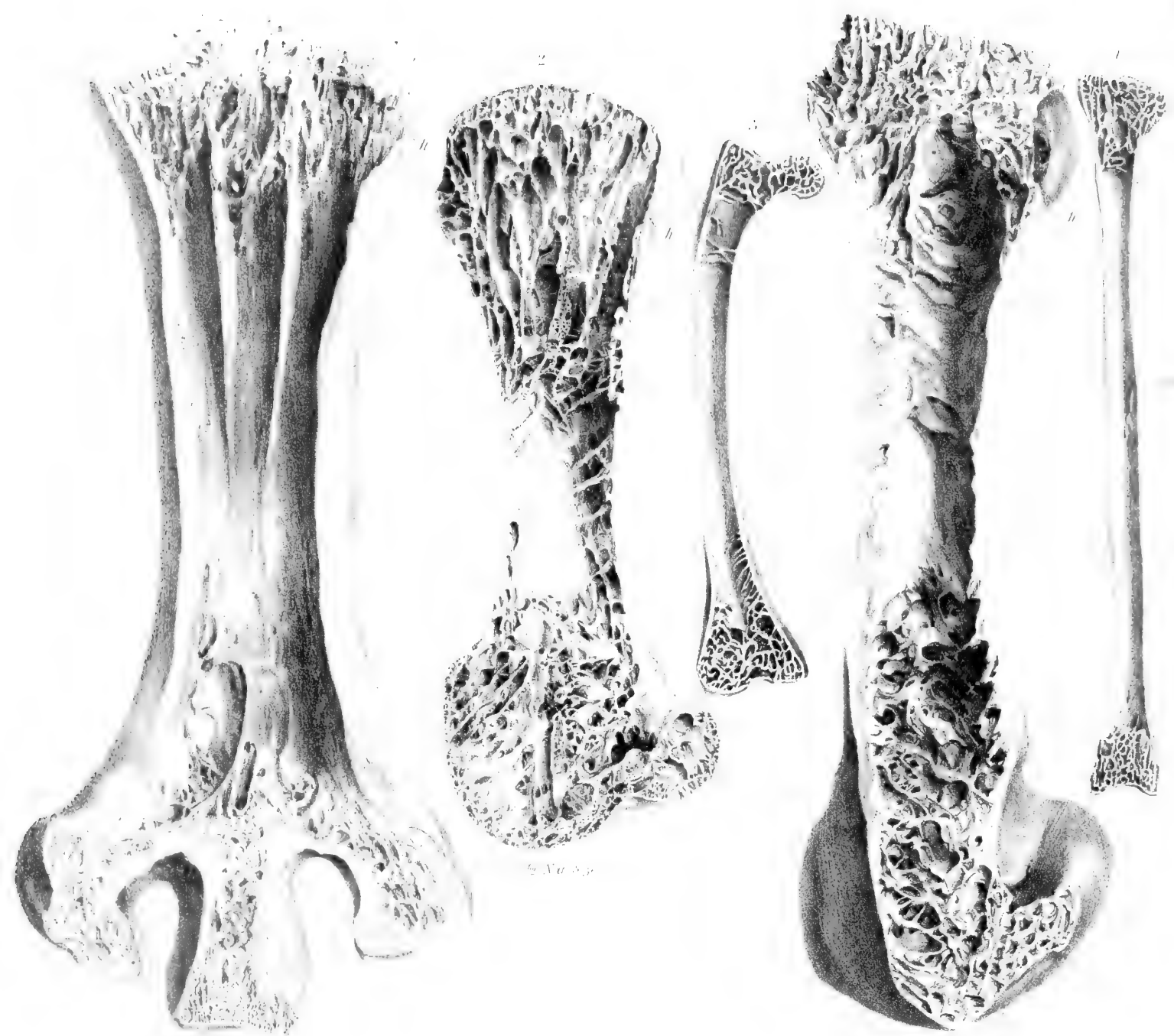
Fig. 24

Dinornis giganteus, 1. *Struthio ibis*, 2. *D. dubius*, 3.



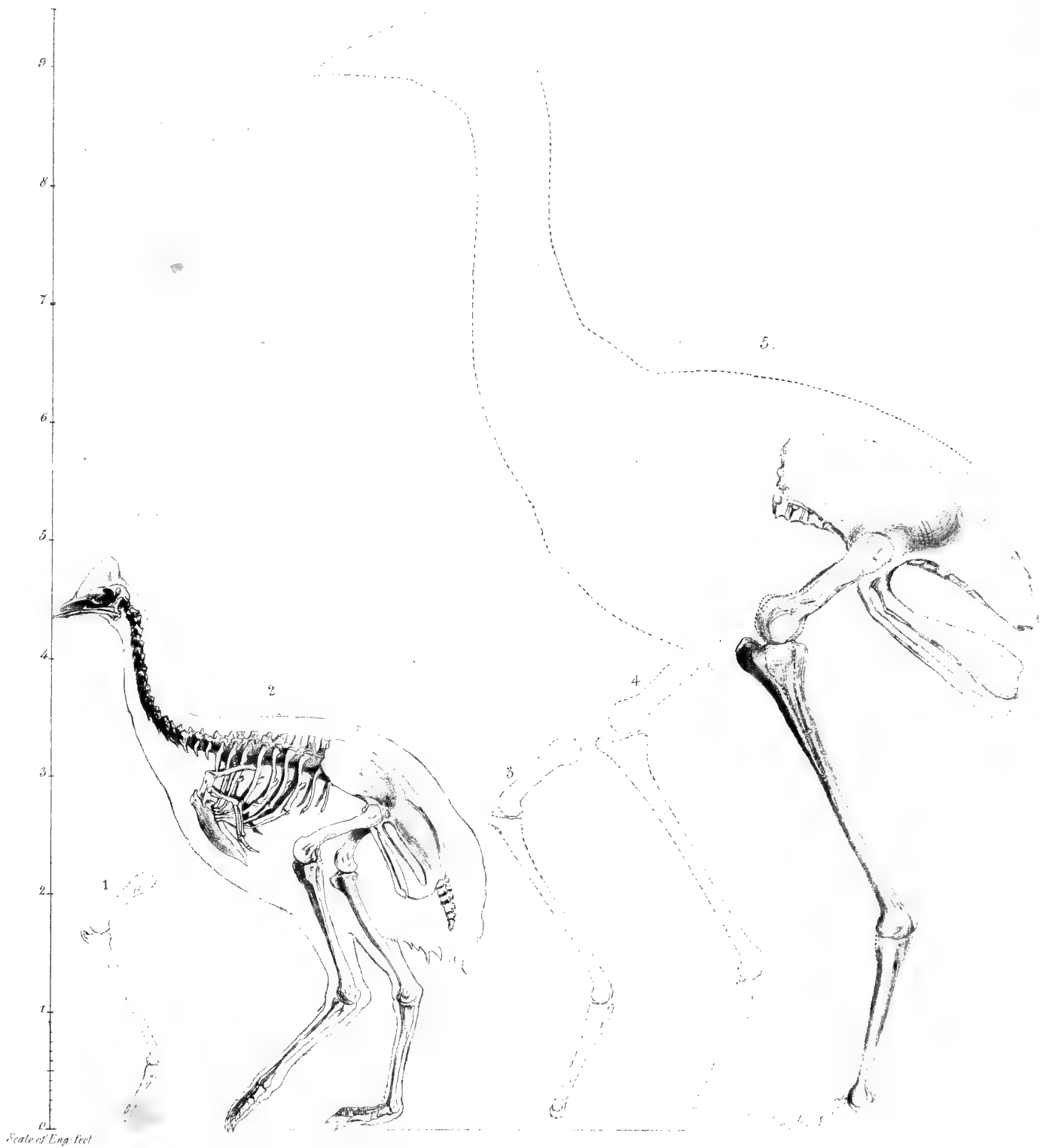
Primates, Anthropoides, 2, streptothecus, 2, p. 100, 1000





Platyrrhini. Sceloporus. Sceloporus.

PL. XXX.



1. Exochus. 2. L.

2. L. 3. L. 4. L. 5. L.

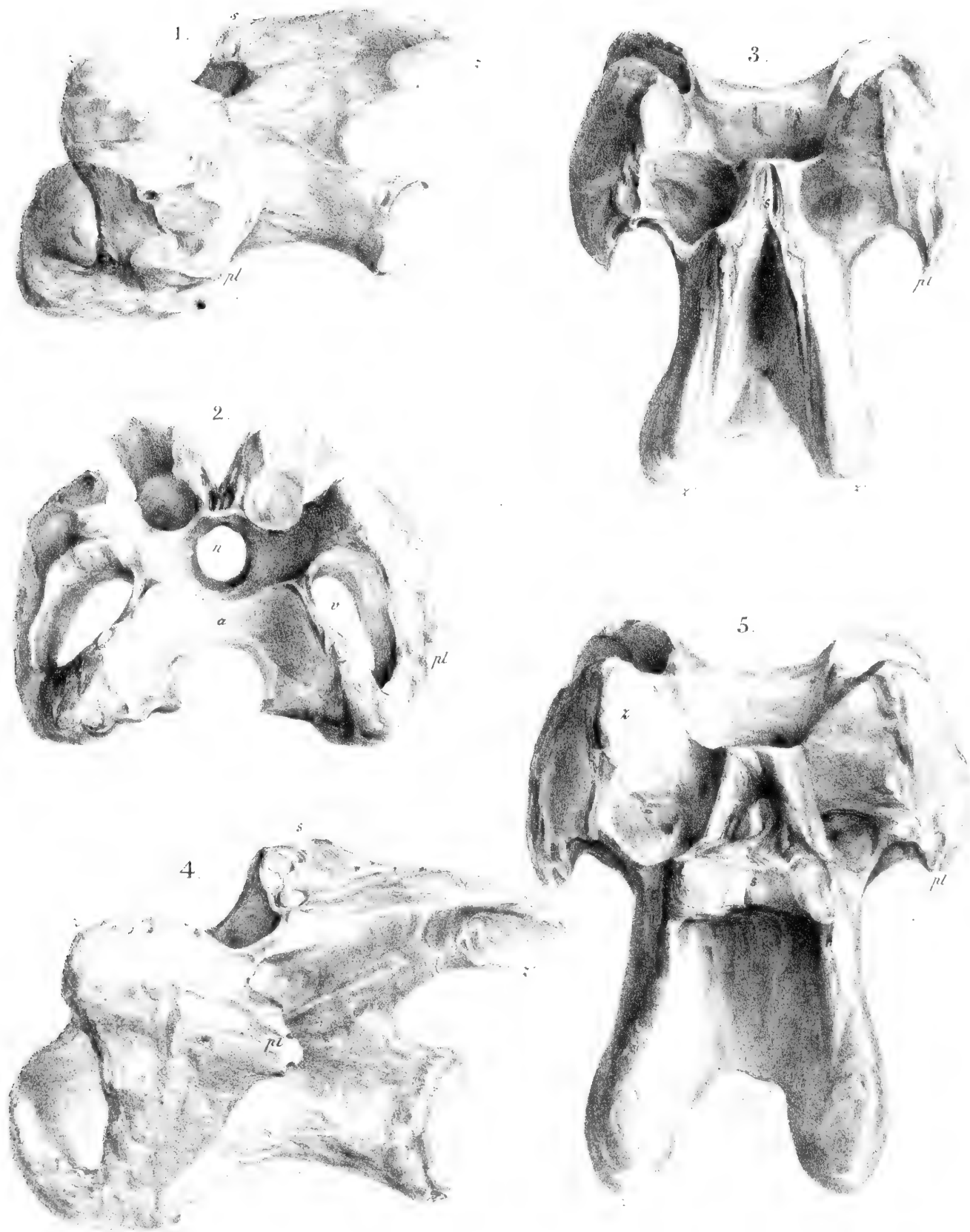
Dimorphis - 1. *didiformis*. 2. *struthoides*. 3. *ingens*. 4. *giganteus*.
5. *canadensis*.



Dracopis to 100

Dracopis to 100

1, 2, 3 *Dracopis*. 4, 5, 6 *Elmorus dracopides*. 7 *Elmorus gigas*. 8 *Bruthus*. 9 *Apteryx*



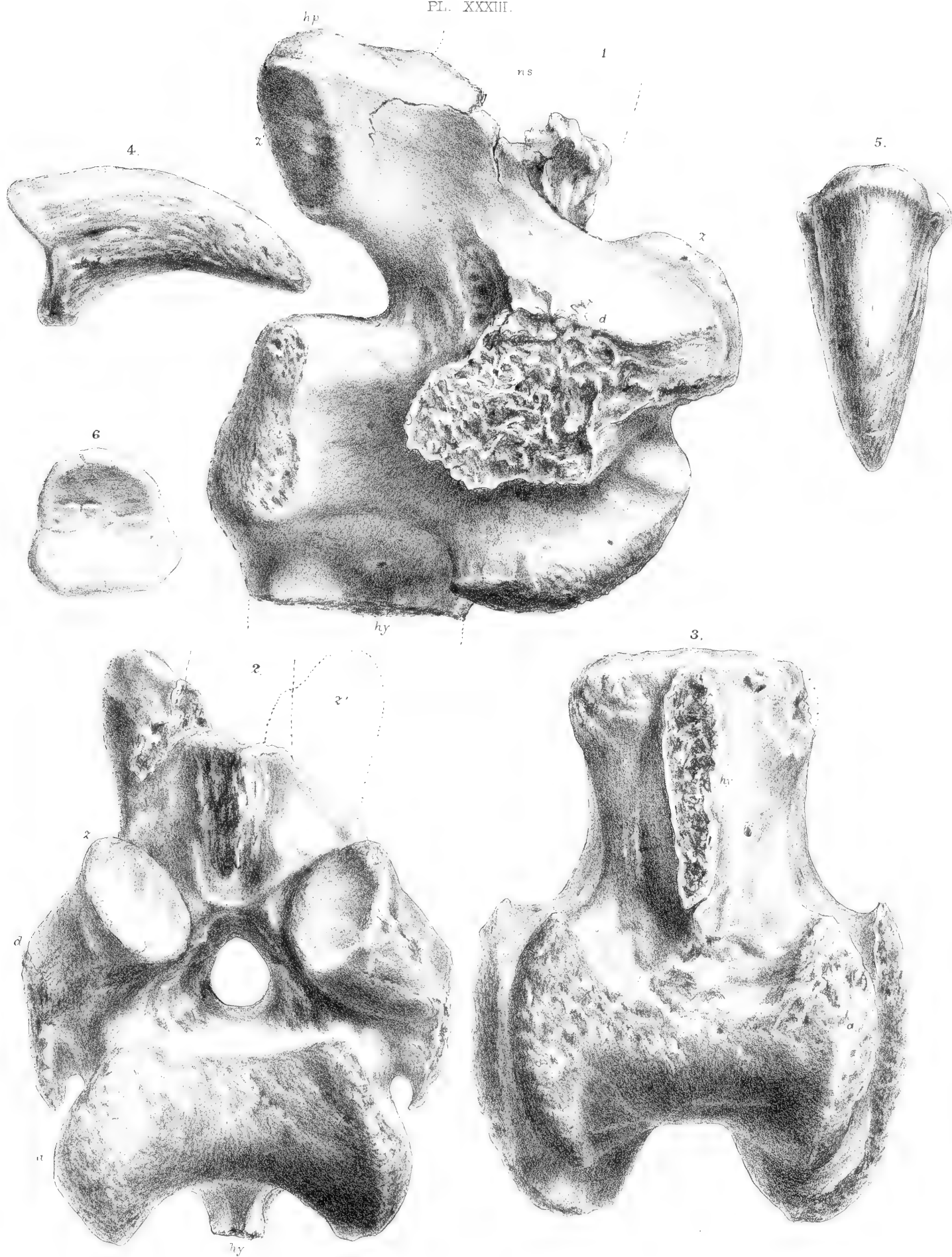
J. B. Smith del.

Nat. Size

Eng & Hague lith to the Queen

Various vertebrae

1, 3 *Dinornis ingens* 4, 5. *Din. giganteus*





J. Enslin del.

Nat. Size.

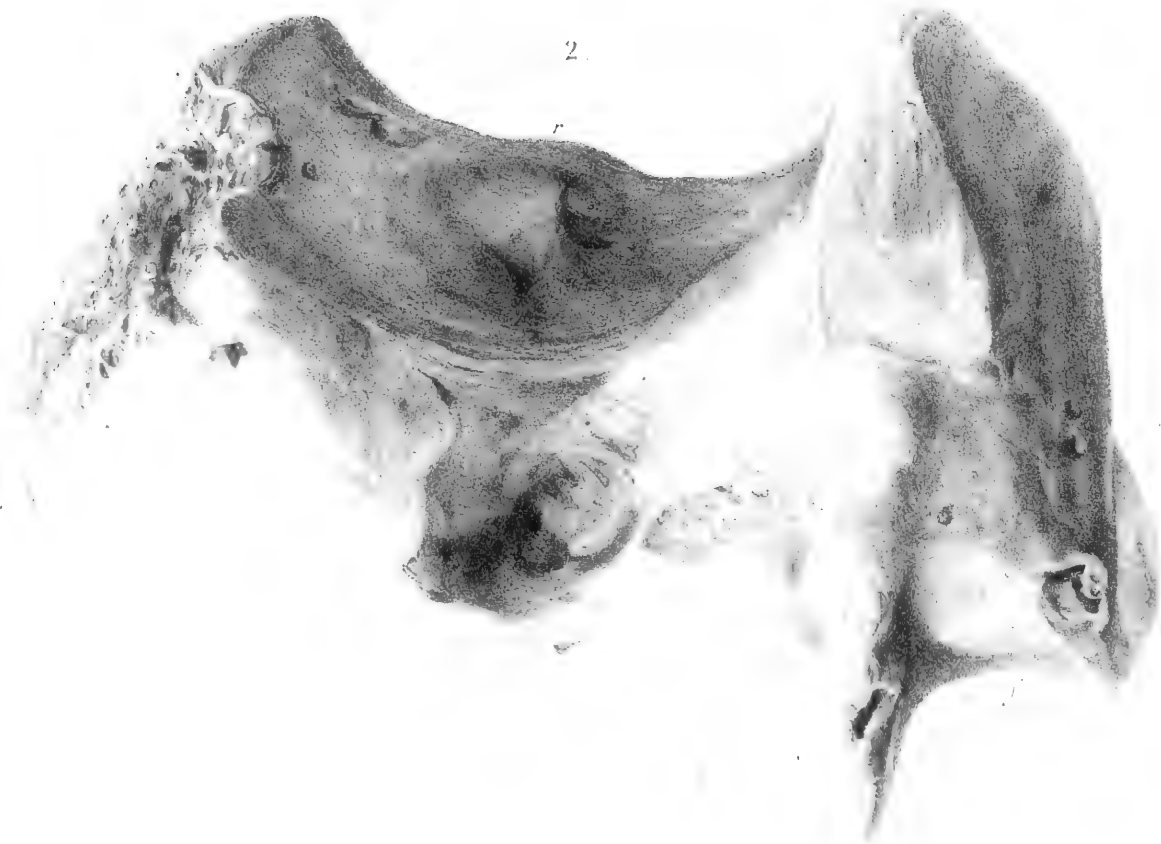
Gift of H. A. H. to the Queen

Deer vertebrae

1. 2. *Diceros crassus* (?). 3. 4. *D. ingens*



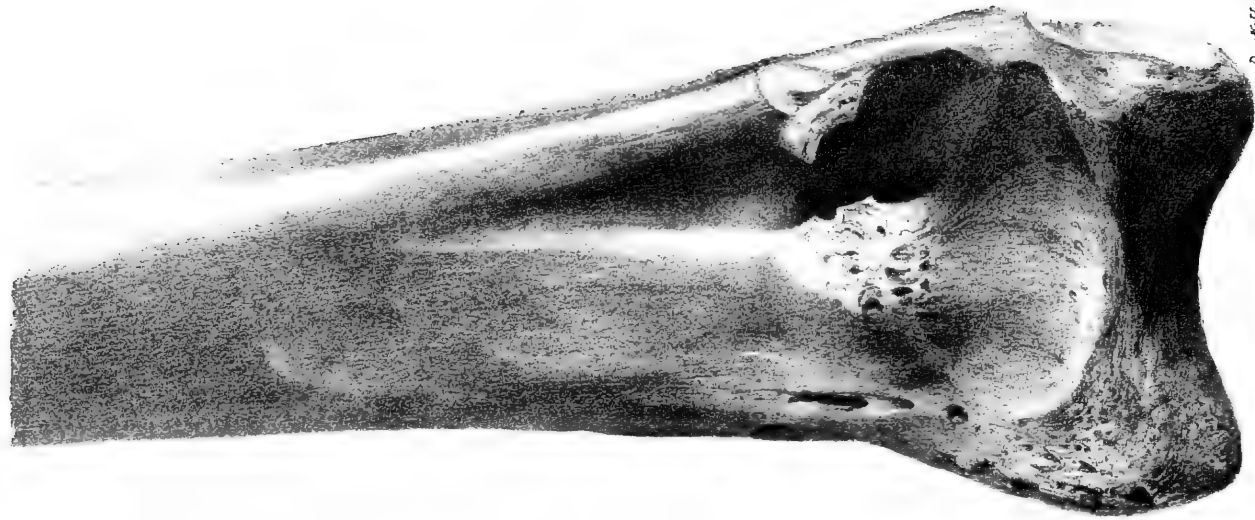
1. 2. 3. *Dinornis* - 4. *Struthio* - 5. *Rhea* - 6. *Casuarus* - 7. *Dromaius* - 8. *Spteryx*.





1 *Pinornis gigas*. 2 *Struthio*. 3 *Dromaeus*. 4 *Argala*.



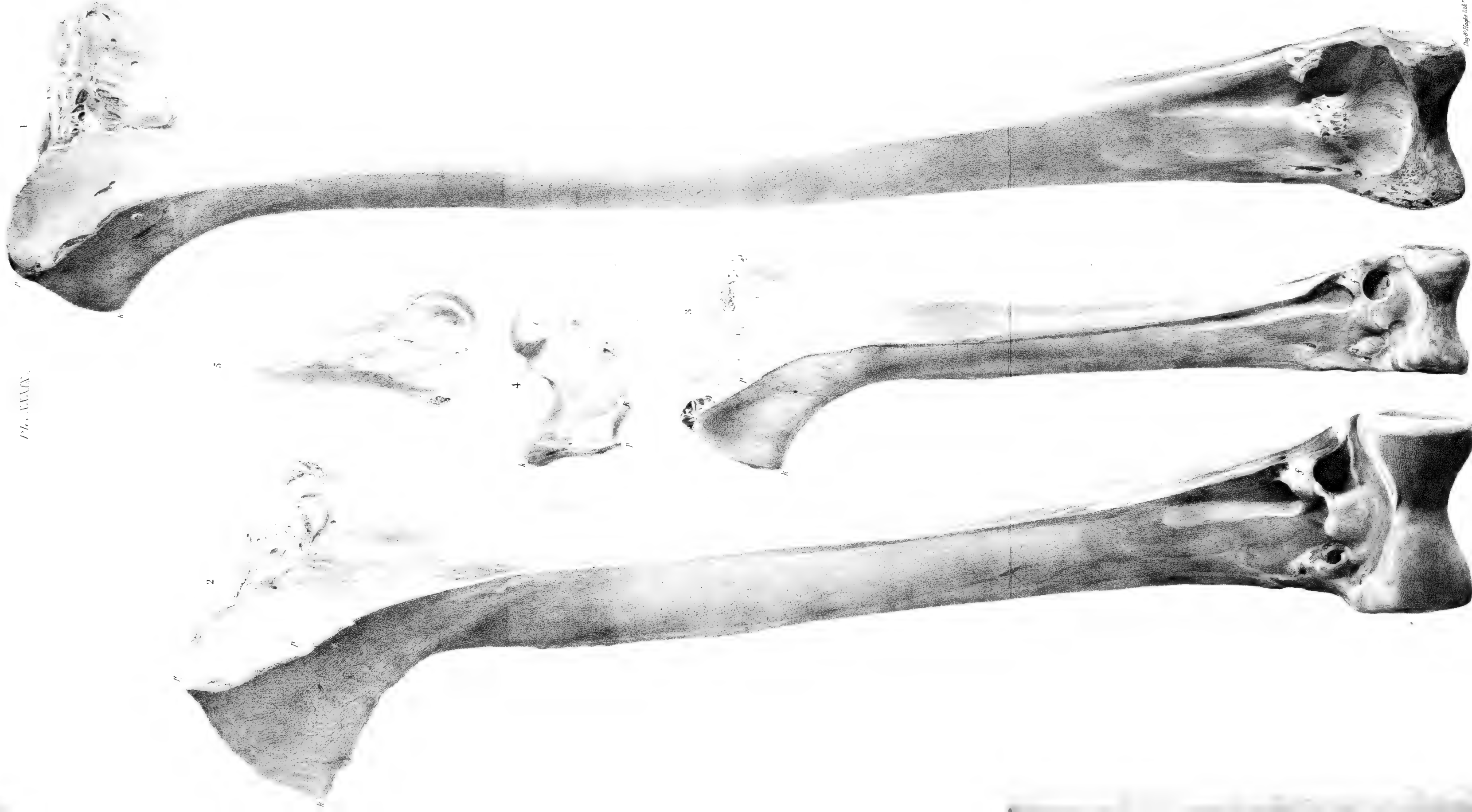


Nat. Size

Tibia

Megaplegx dromioides. 2. *Dinornis casuarinus* 3-5. *Din. curtus*.

Day & Haghe Lith. " to the Queen



Nat. Size.

Tibia

1. *Pelepteryx dromioides*. 2. *Dromus casuarinus*. 3. 5. *Pip. curtus*.

Depth of angle 1/10 to 1/12 of length.

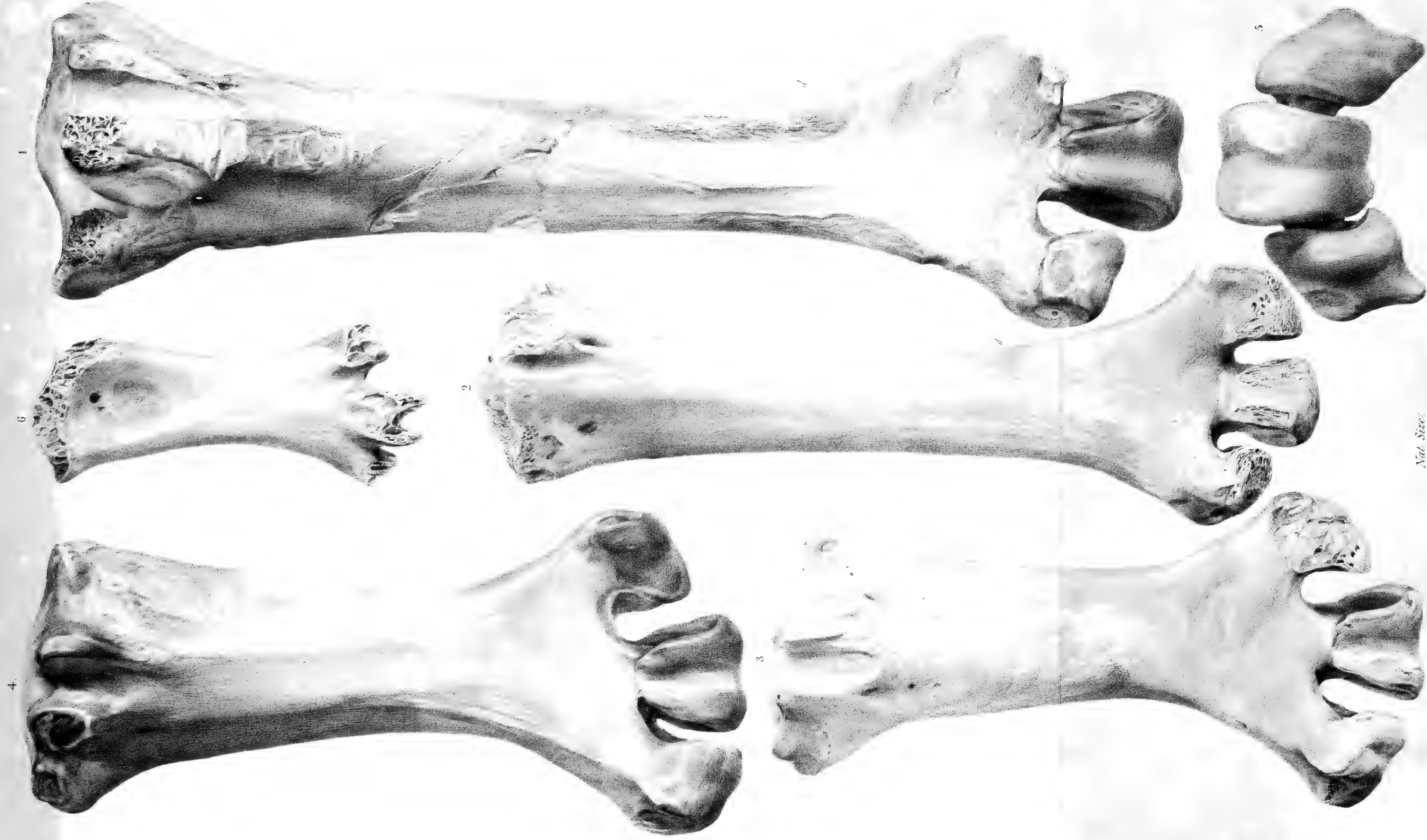


Nat. Size.

Tarsal - metatarsus

Drawn by H. H. Huxley

1. *Iguanodon ingens* 2. *Din. cromptoni* 3. *Din. cromptoni* 4. 5. *Din. cromptoni* 6. *Din. cromptoni*

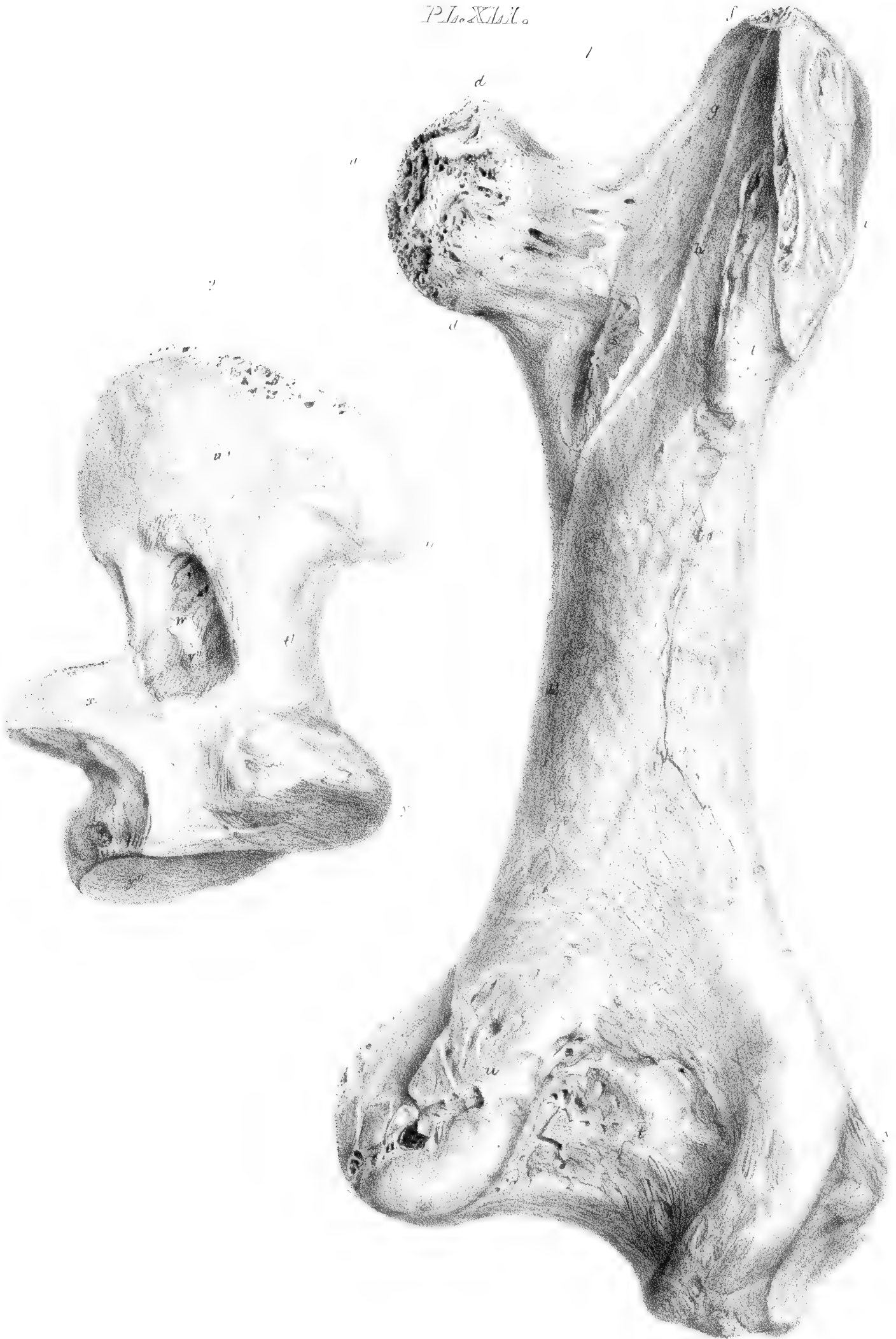


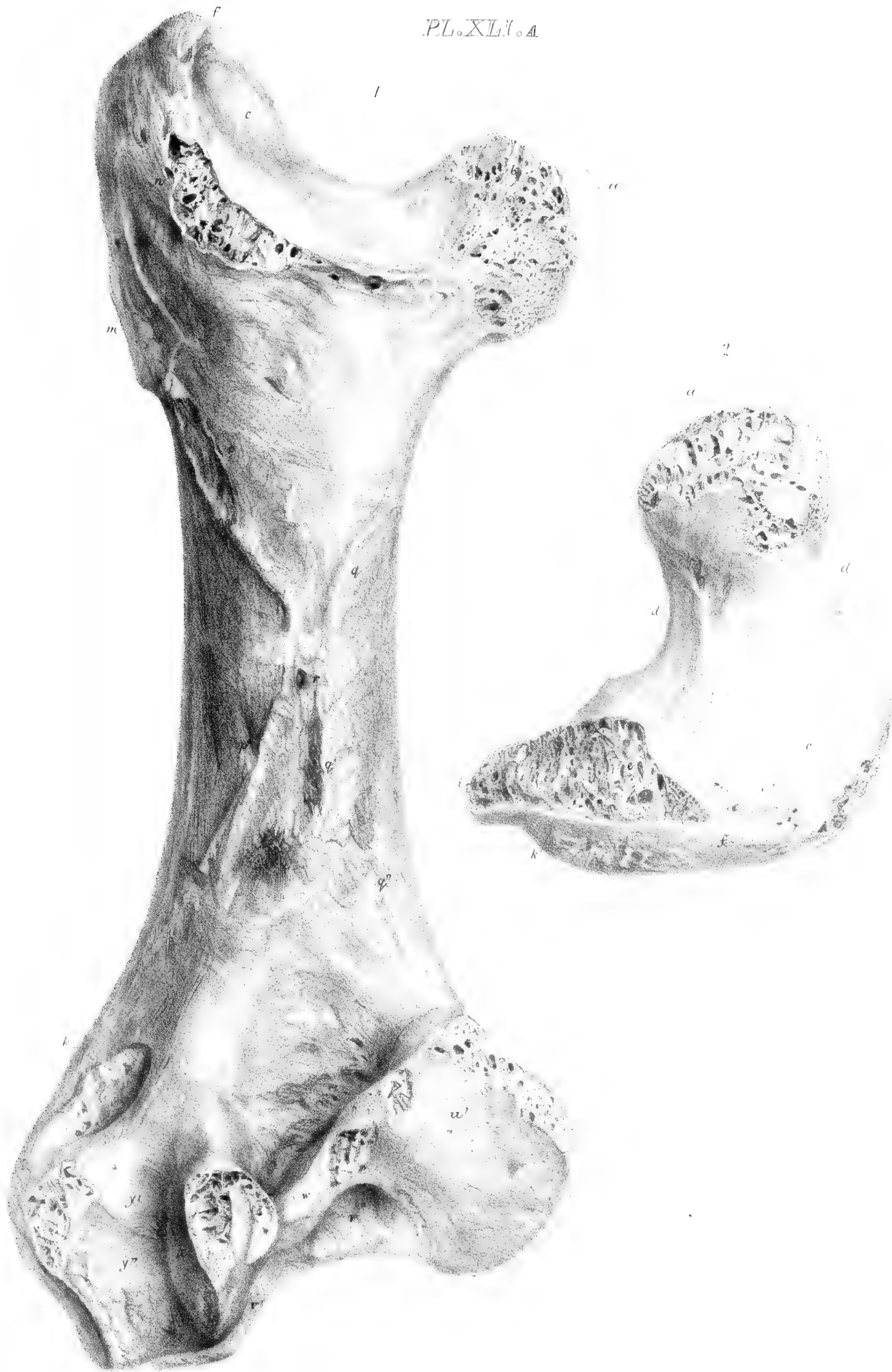
1. *Dromicoides* 2. *Din. casuarinus* 3. *Din. aurtus*

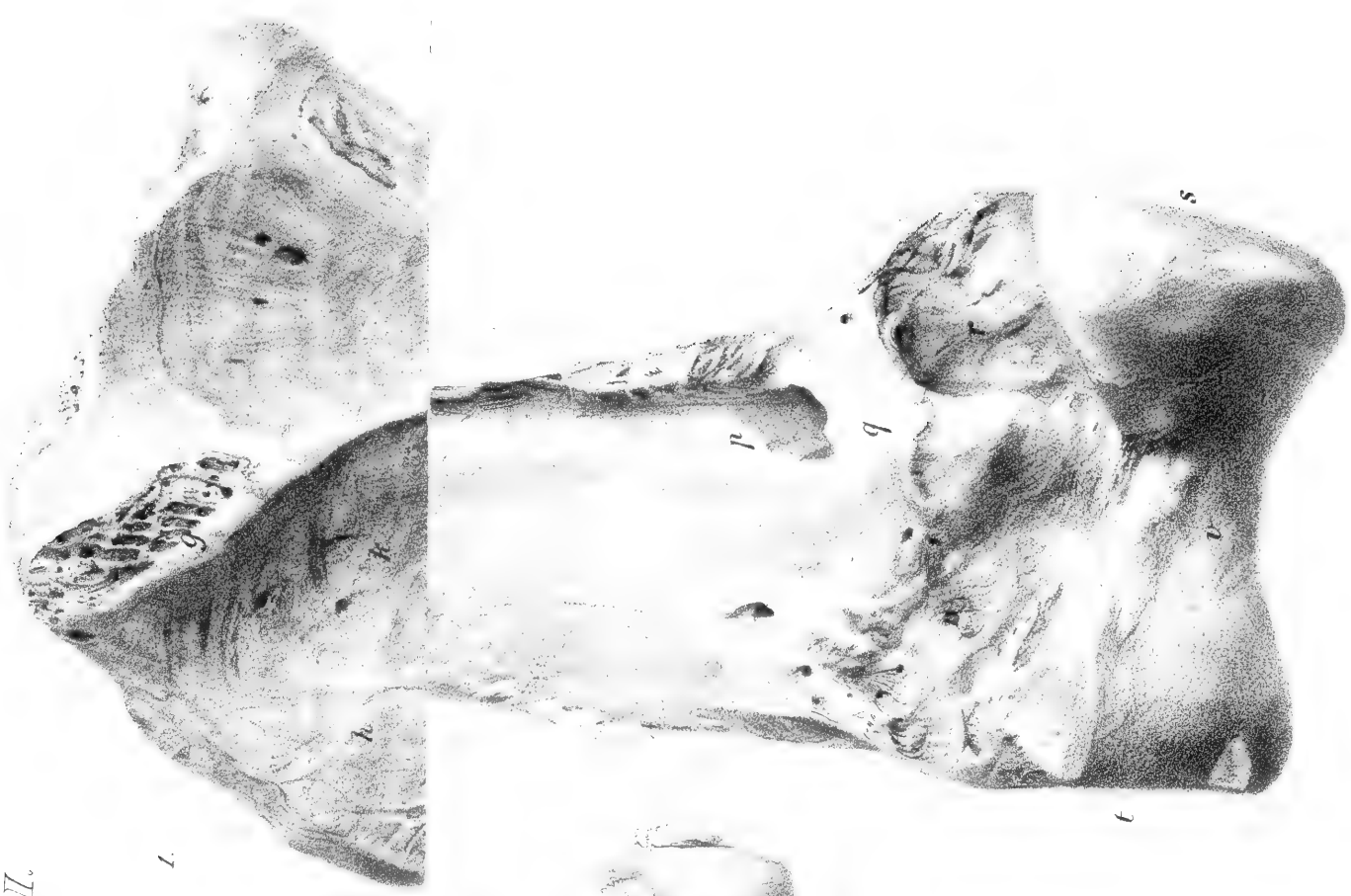
4. *Din. casuarinus* 5. *Din. aurtus* 6. *Din. aurtus*

Nat. Size.

Fig. 1. *Dromicoides* 2. *Din. casuarinus* 3. *Din. aurtus*







— 3. DUFFING GRANTS 4. DROMAUS.

From rationalizing $\frac{1}{\sqrt{2}-1} = \frac{\sqrt{2}+1}{\sqrt{2}-1} = \sqrt{2}+1$

Printed by M & N Hanriot

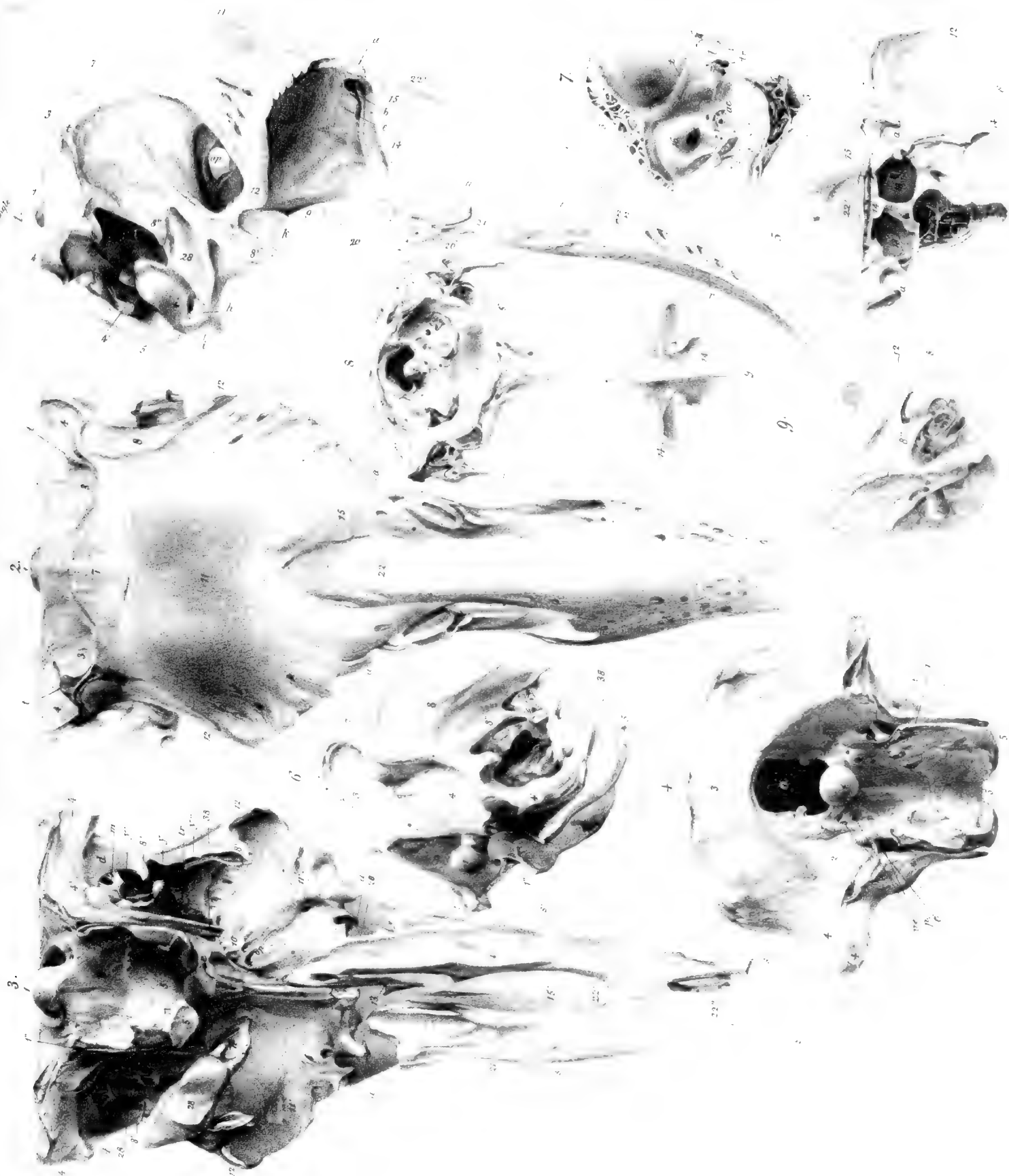




From nat. on. Stone by J. E. Leiden.

DINORNIS GRAVIS

M. & H. Lashart imp.



From Nature on Zinc by J. Erxleben

Nat. Size.

Day & Son Lithog^{rs} to the Queen.

1-7. *Diplornis*. 8-9. *Otis*.

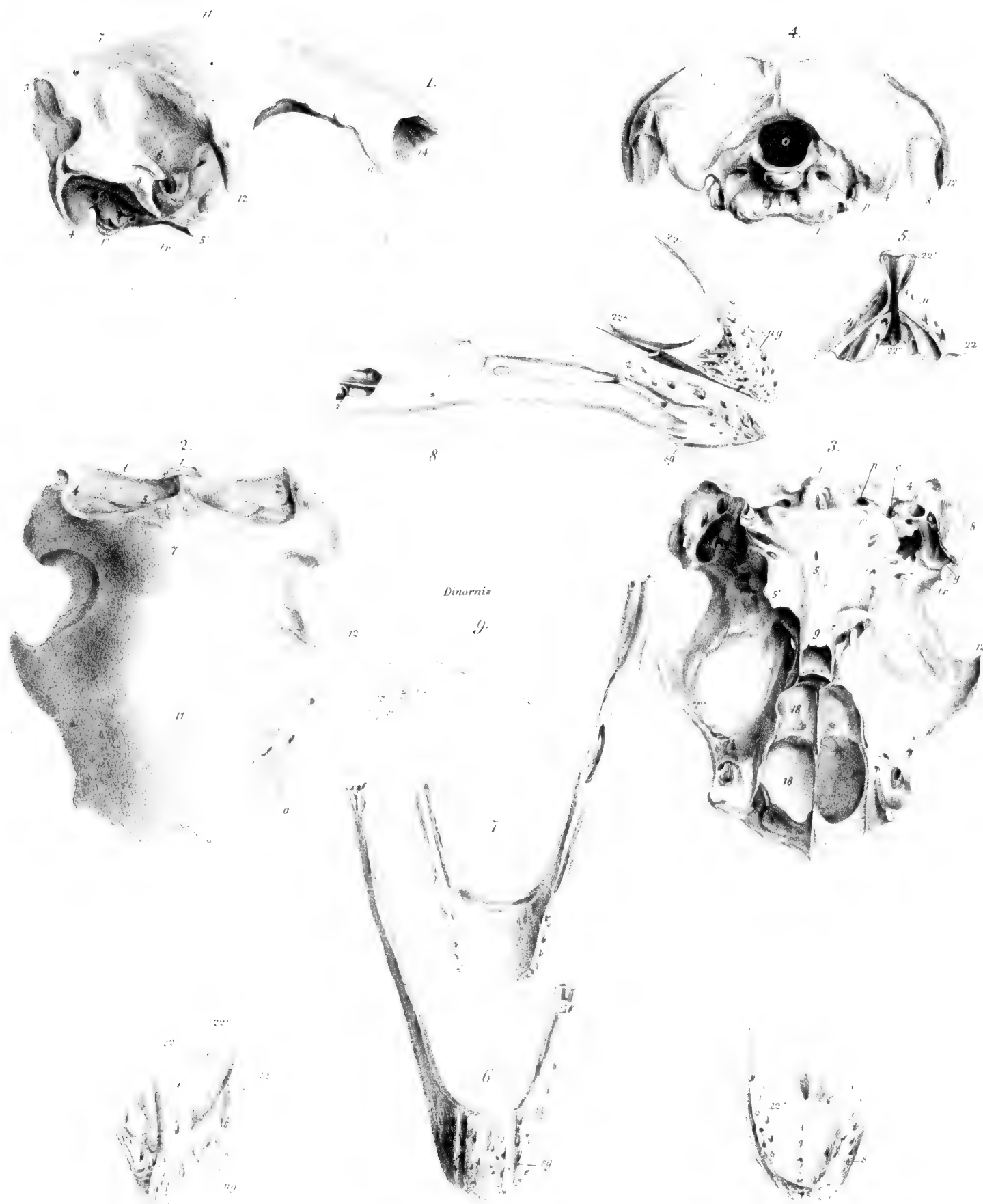


From Nature on Zinc by J. Erxleben.

Nat. Size.

Day & Son Lith^{rs} to the Queen.

1.-2.-3.-8.-9.-10. *Dinornis*. 4.-5.-6. *Struthio*. 7. *Palapteryx*. 11.-12. *Nestor*.



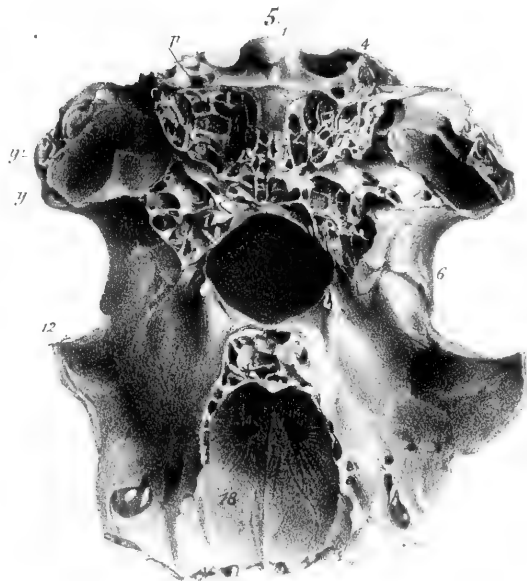
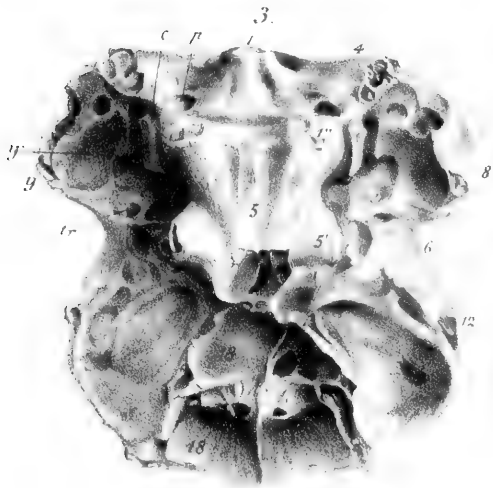
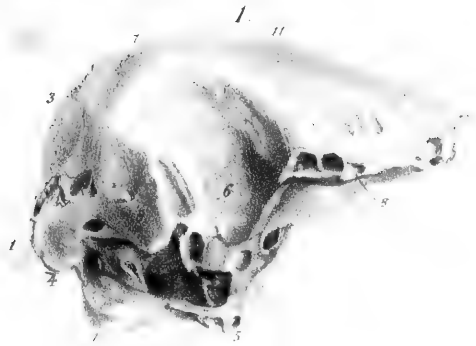
Dinornis

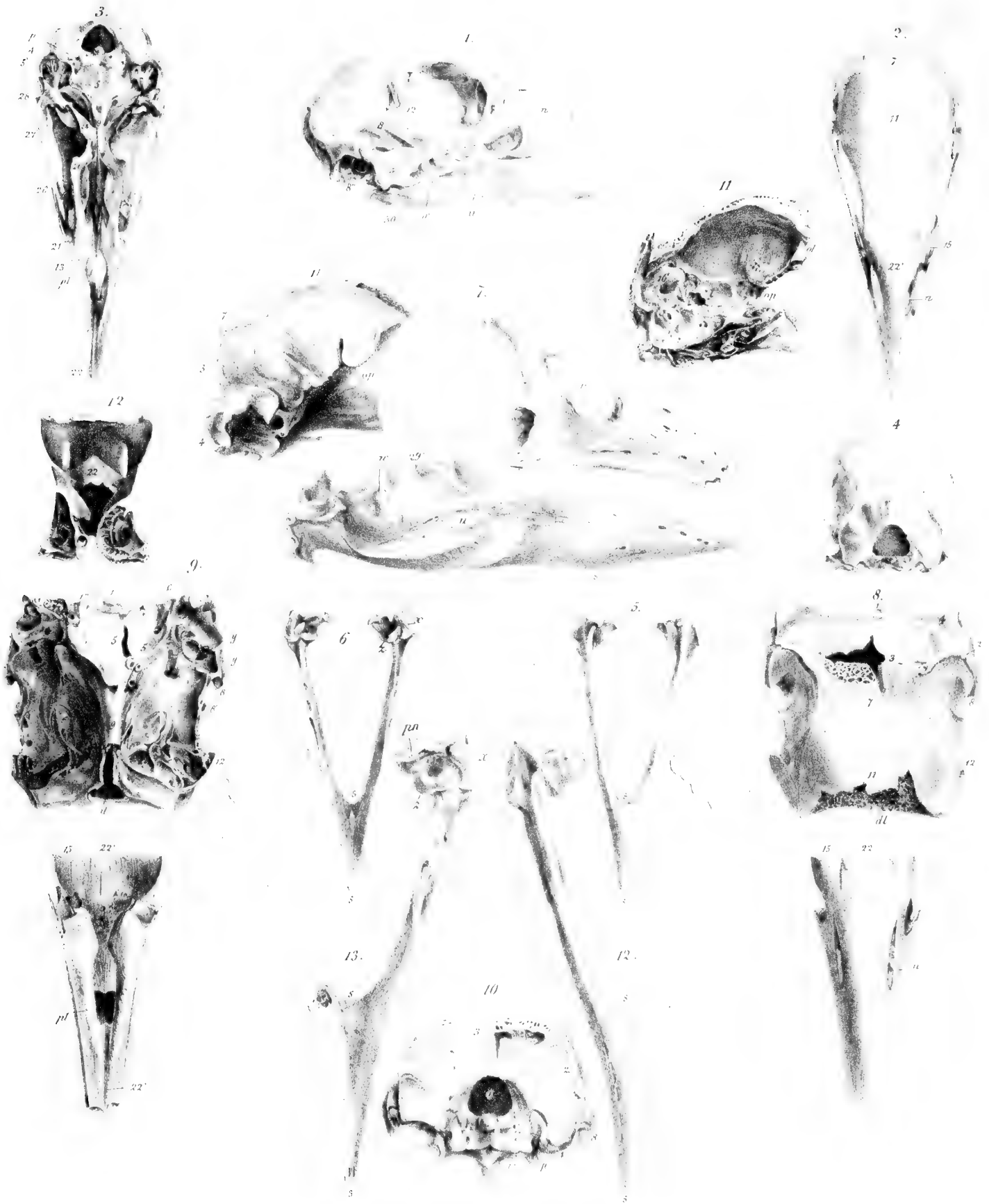
J.

Nat. Size.

Day of Sun Luth^{rs} to the Queen.

Palapteryx.

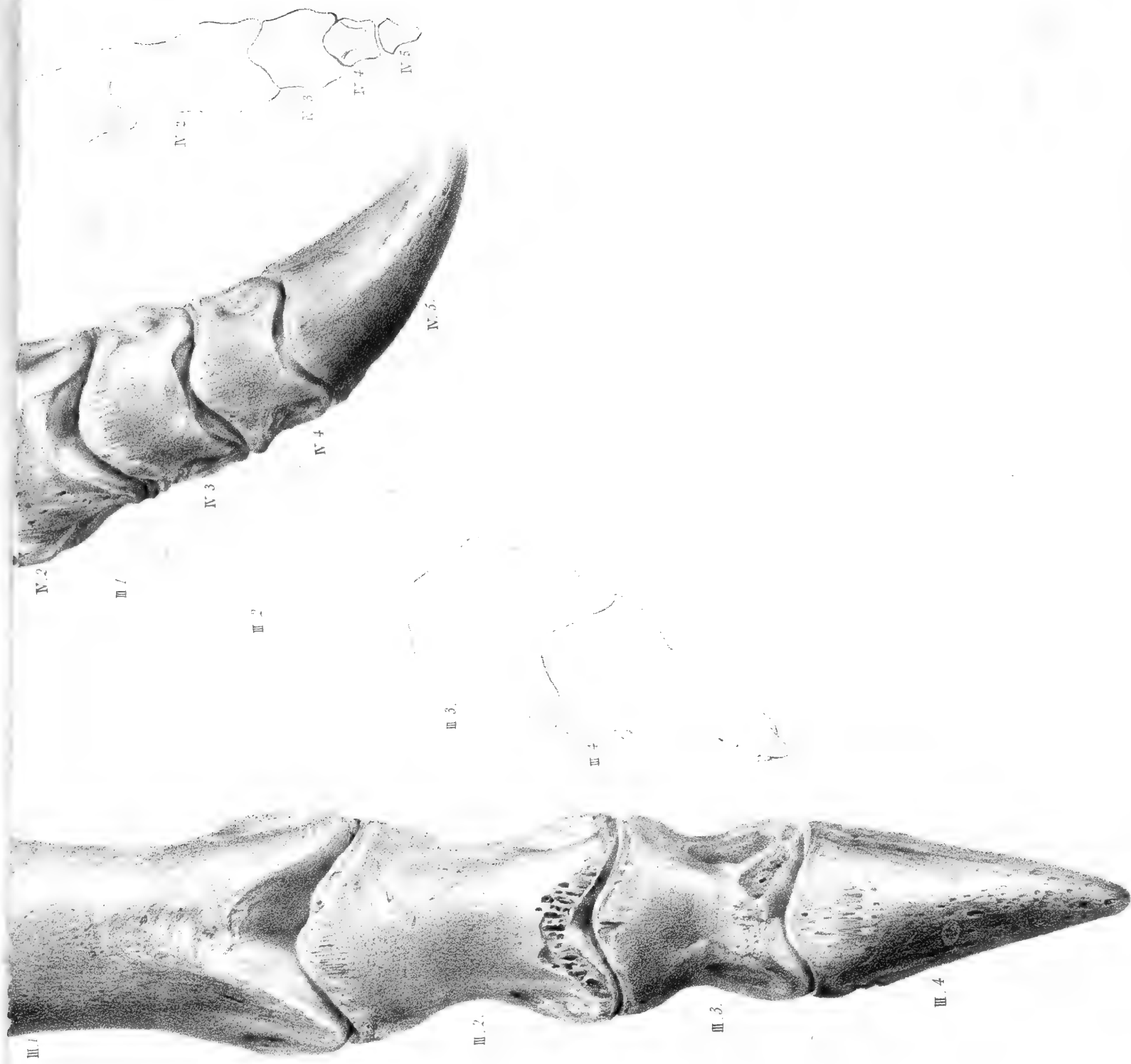




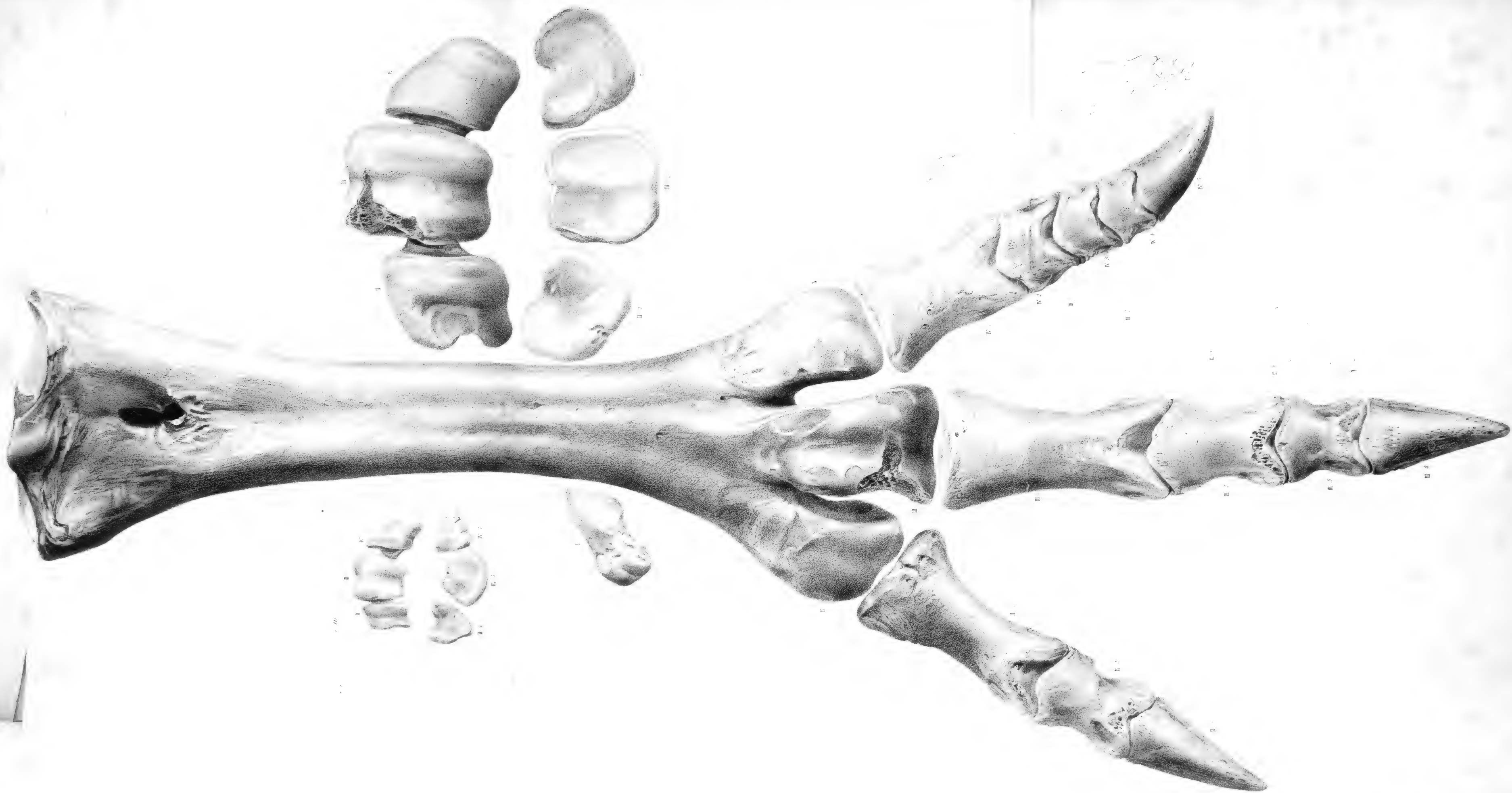
Palapteryx robustus.







Galapteryx robustus.

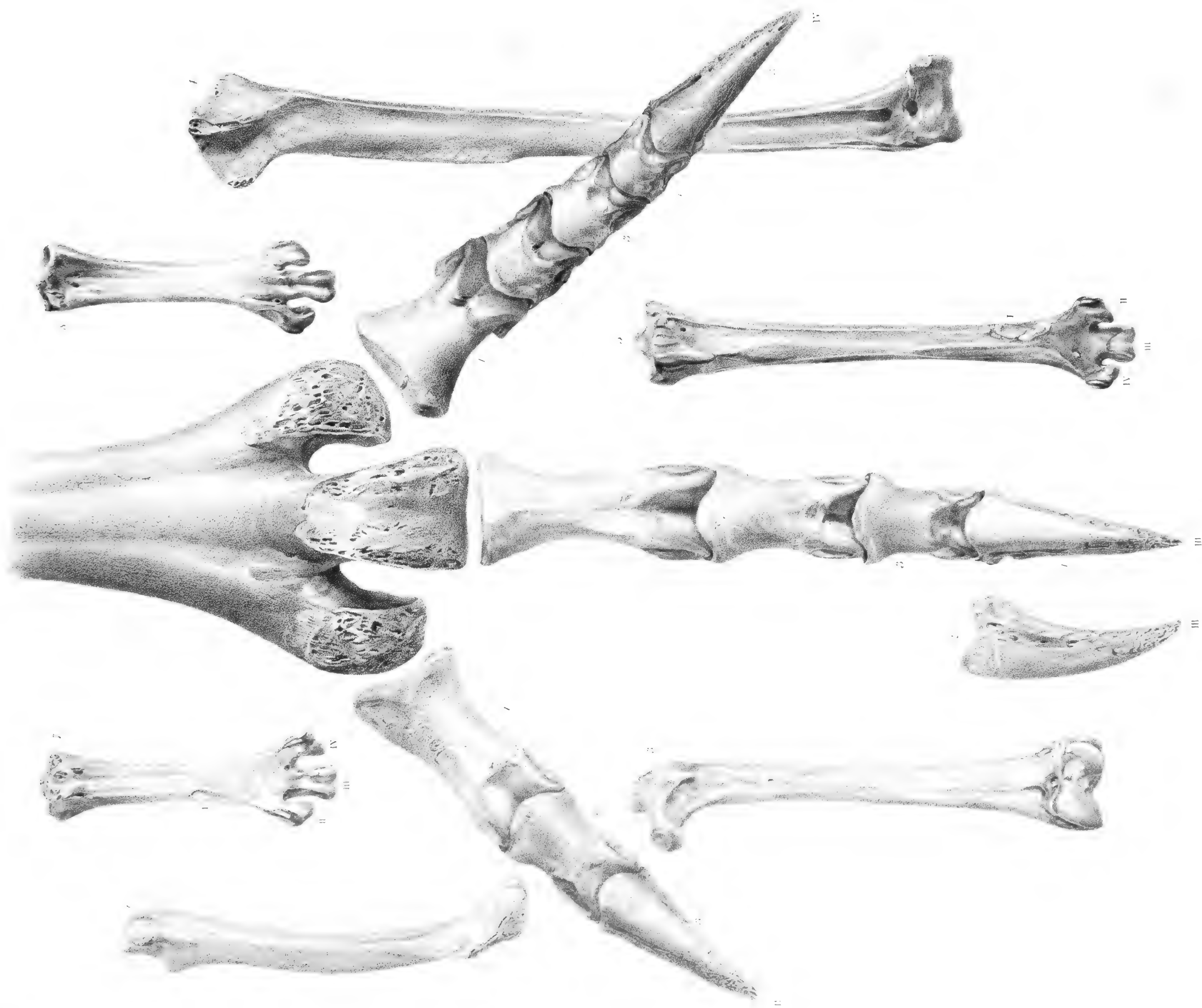


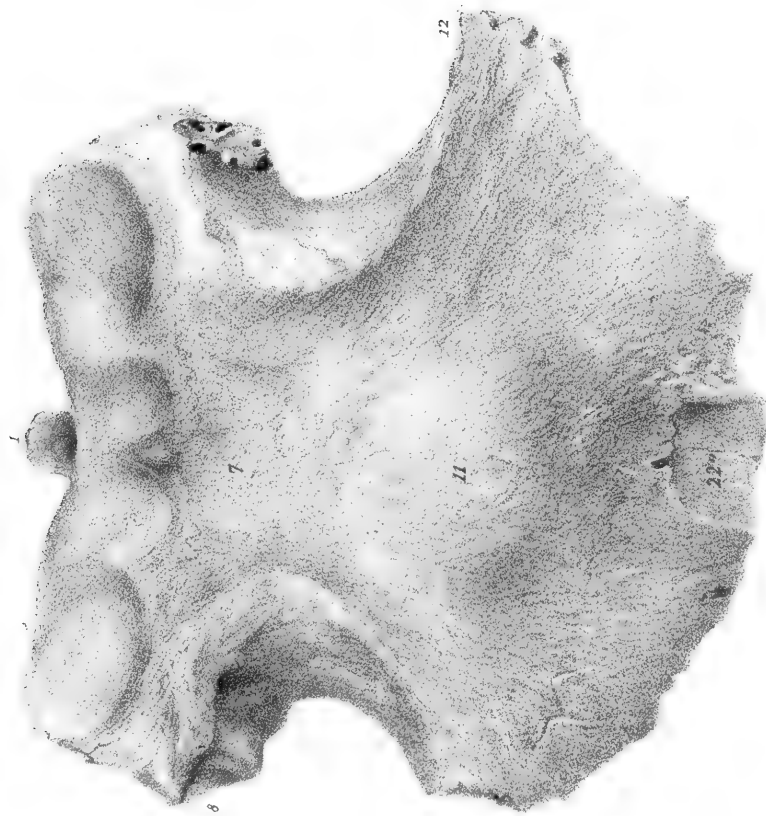
Pl. II.



Pl. II.

1





1.



22.



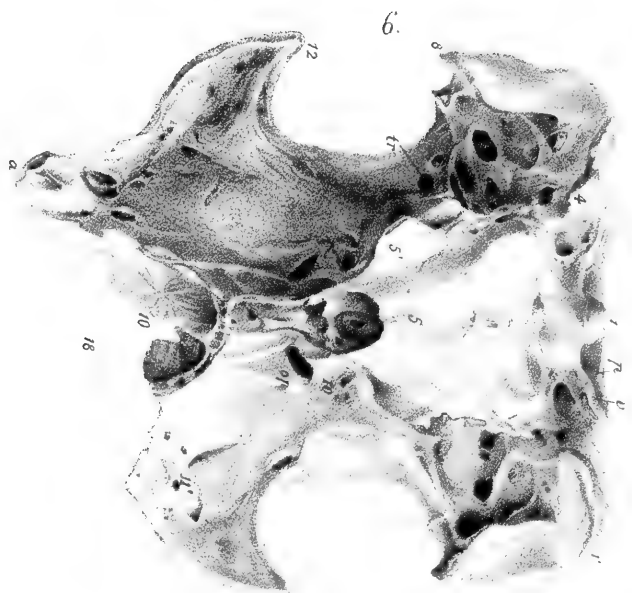
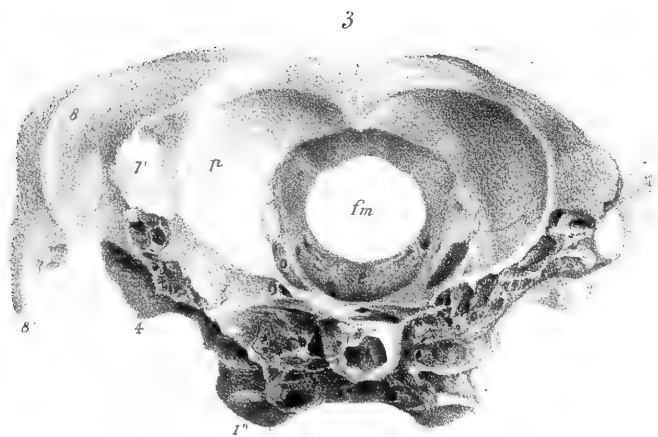
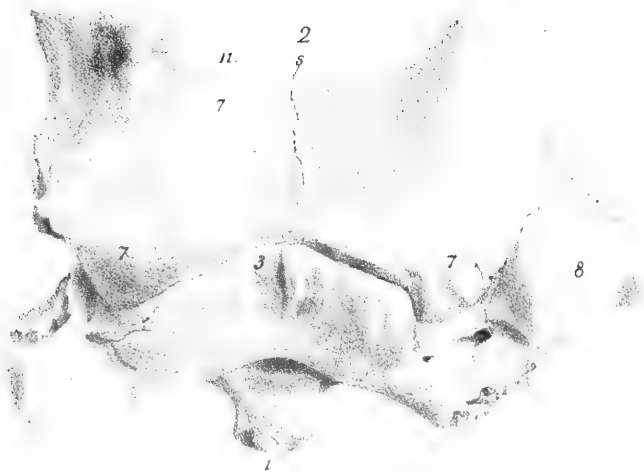
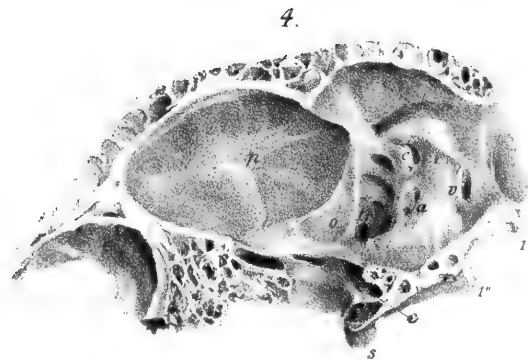
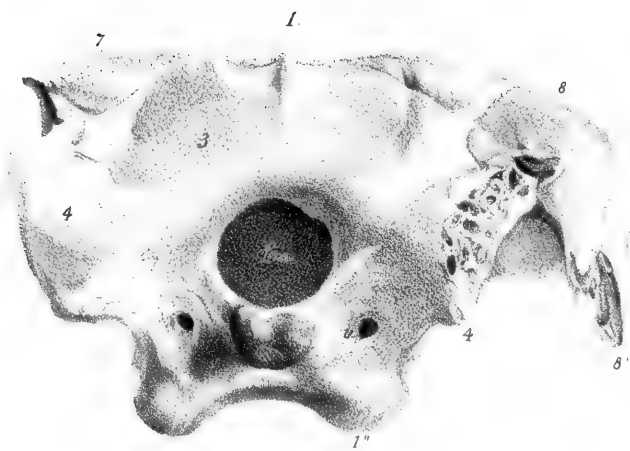
2.

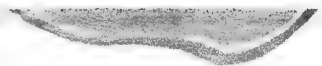


22'

22'

22





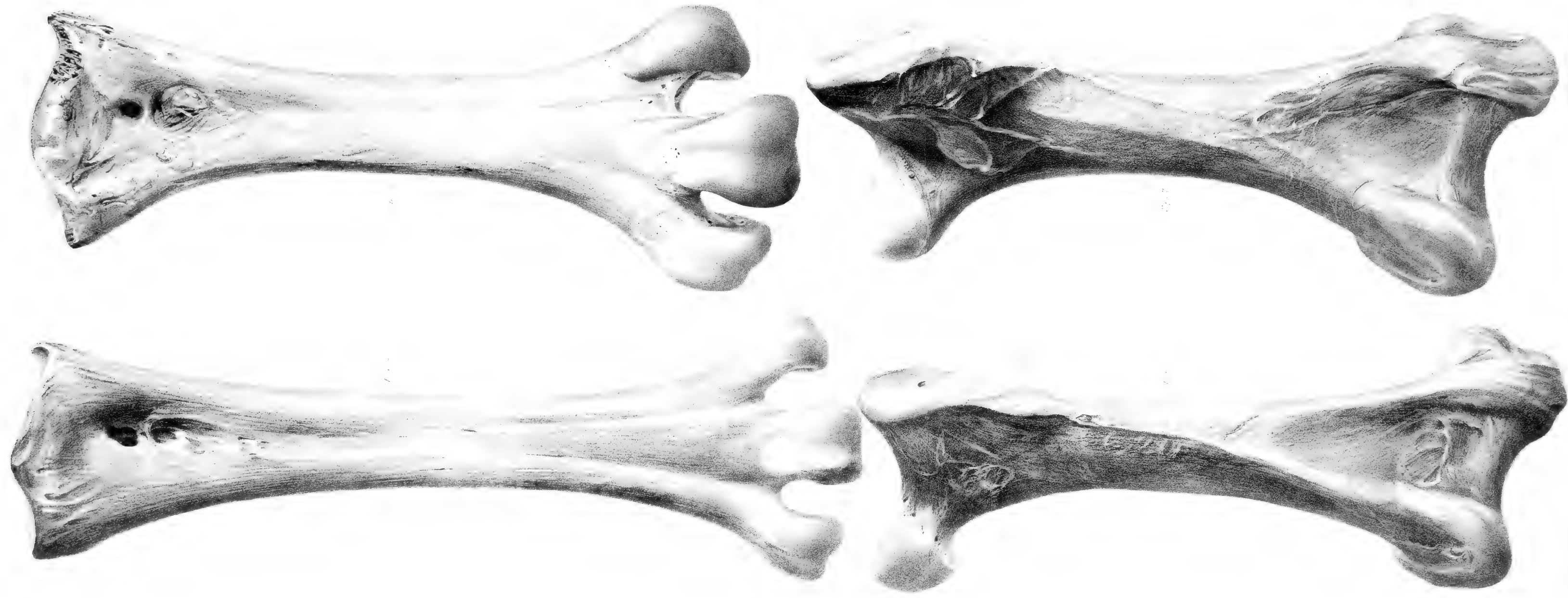


Fig. 182. Clavicle, gracile. Fig. 183. Clavicle, robust.

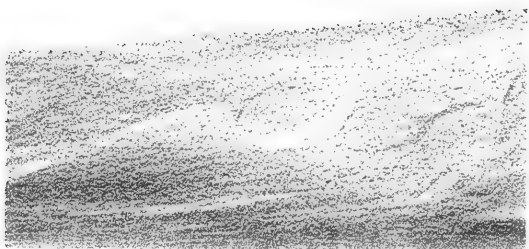
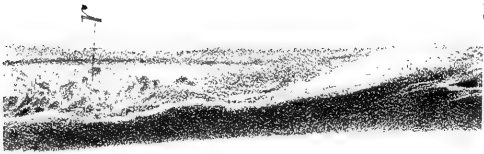


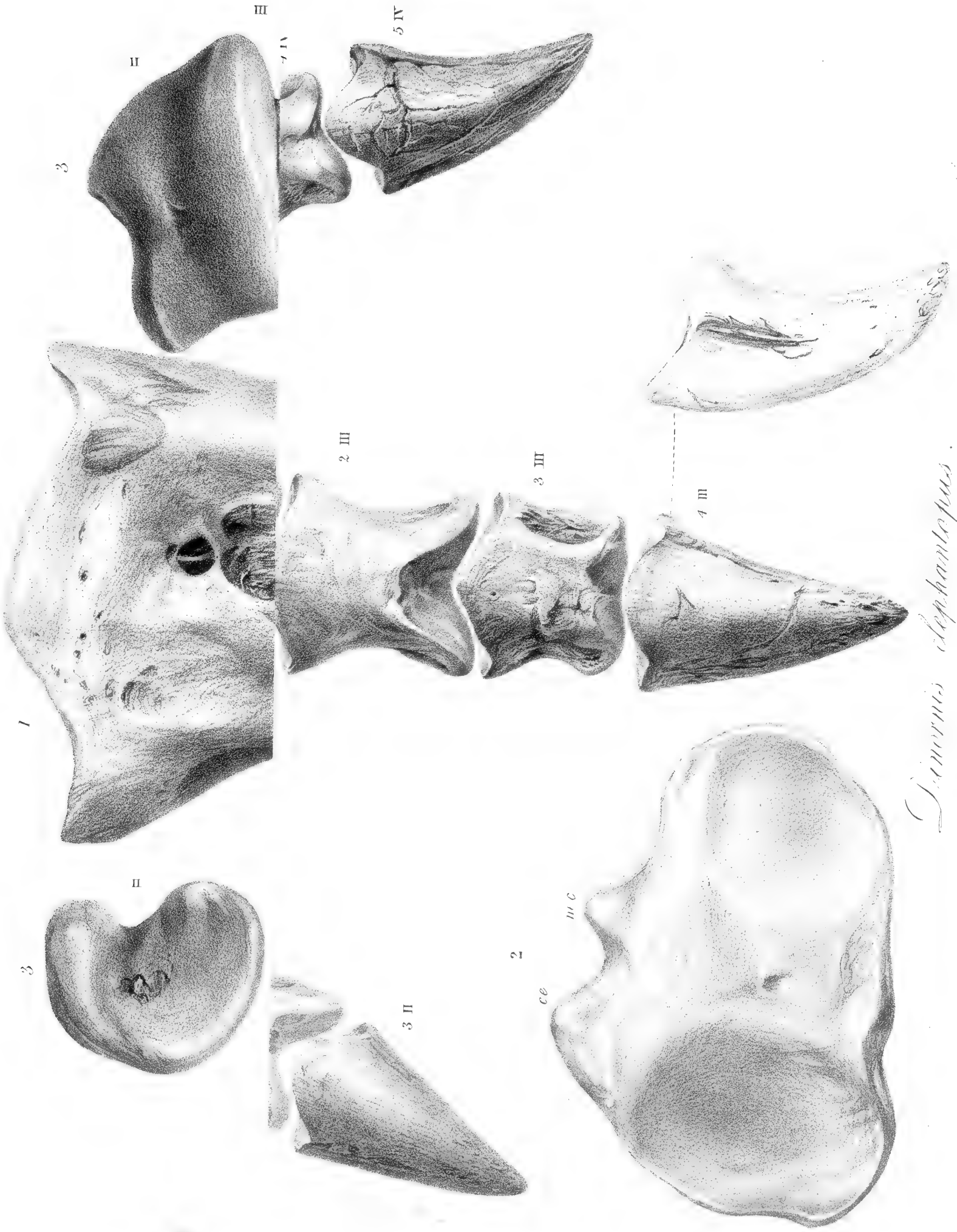


Fig. 1. *Humerus gracilis*. Fig. 2. *Humerus struthionis*.





Dinornis elephantopus.

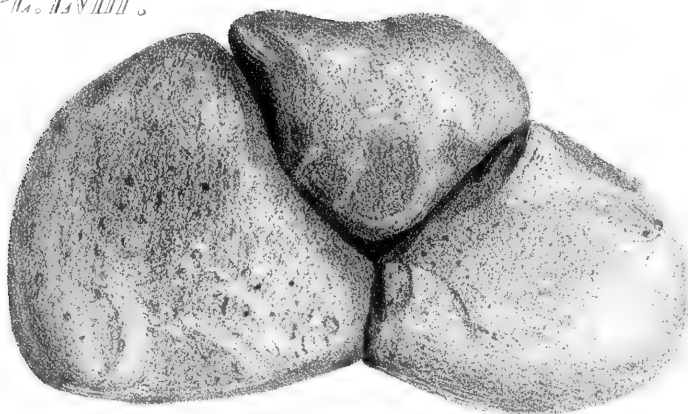


Dinornis elephantopus.

This scientific illustration depicts the skull and mandible of *Cuvier's elephantopod*. The central figure is a lateral view of the skull, showing the eye socket, nasal cavity, and the base of the mandible. Surrounding this are several detailed views of the teeth and jaw structure, labeled with Roman numerals I, II, III, and IV. The teeth are shown in various orientations, including lateral and medial views, highlighting their unique shape and structure. The illustration is a detailed black and white engraving, typical of 19th-century scientific publications.

Summ. cephalepoda.

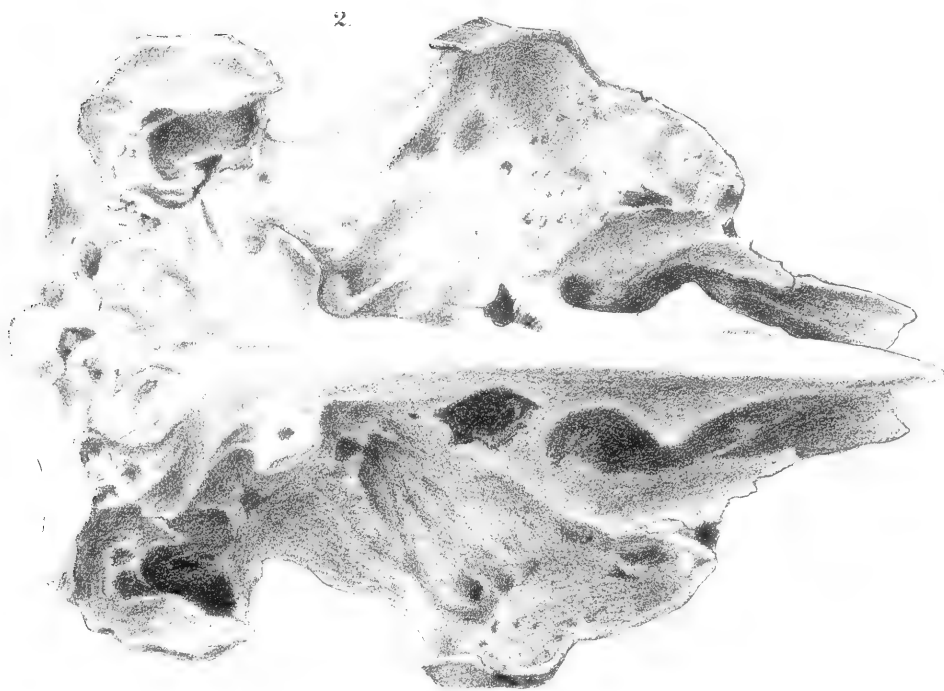
Fig. 2.



a.

Fig. 1.

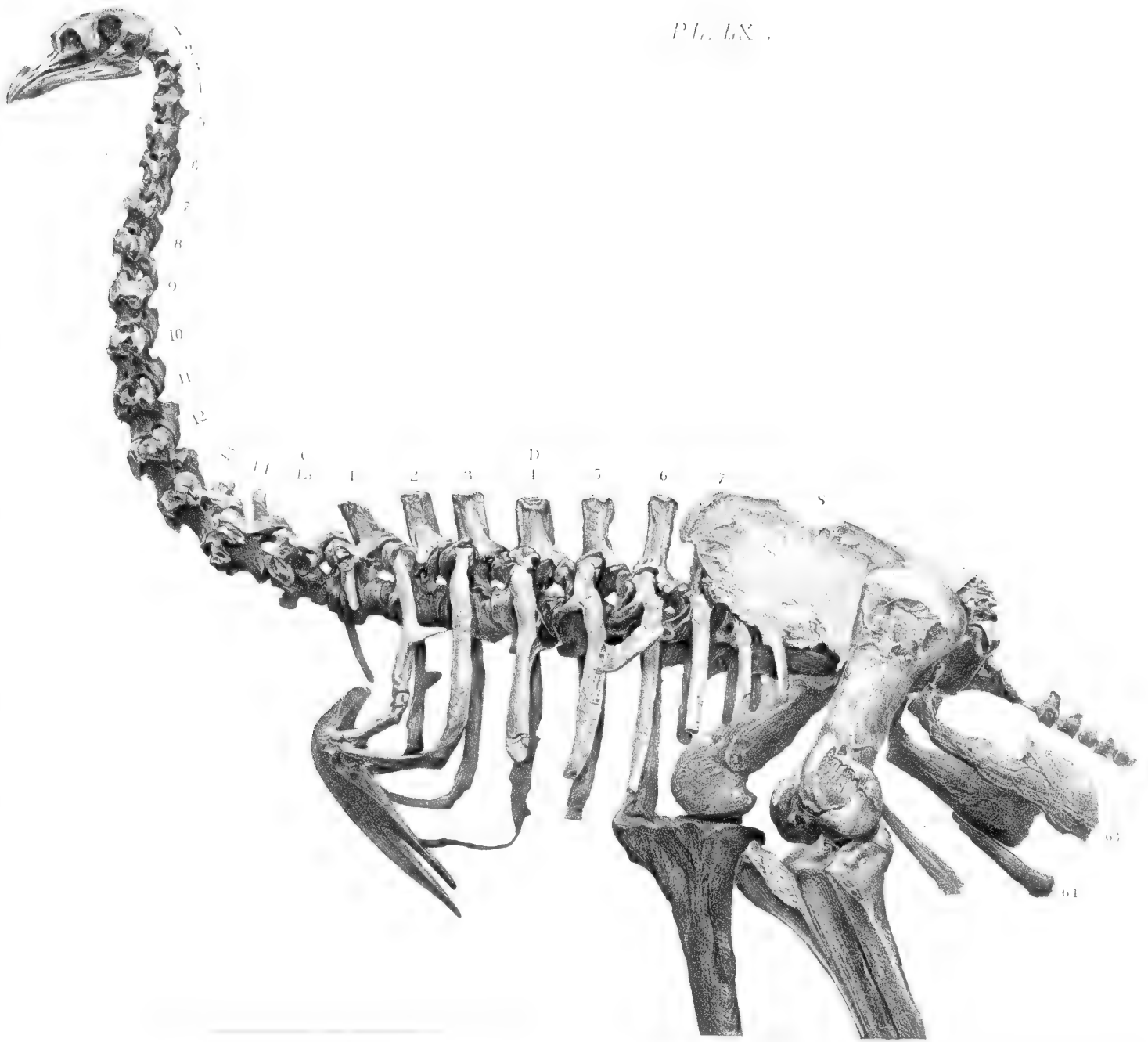




Erleben del H. Olson L'h

W. West & Co. imp.

DINORNIS ELEPHANTOPUS, 1. SKULL, 2. BASE OF CRANIUM. 3. FRONT OF L^o

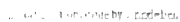




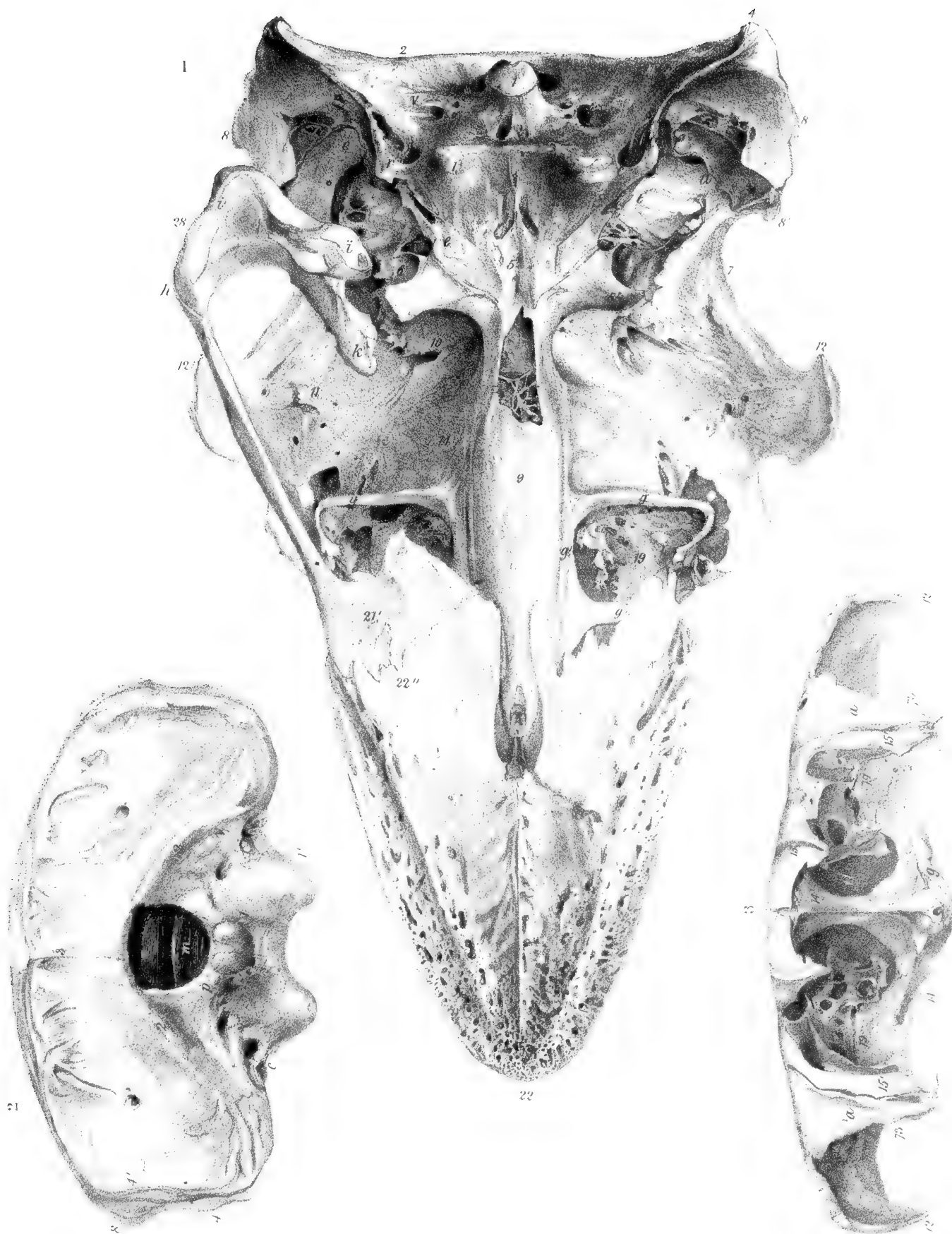


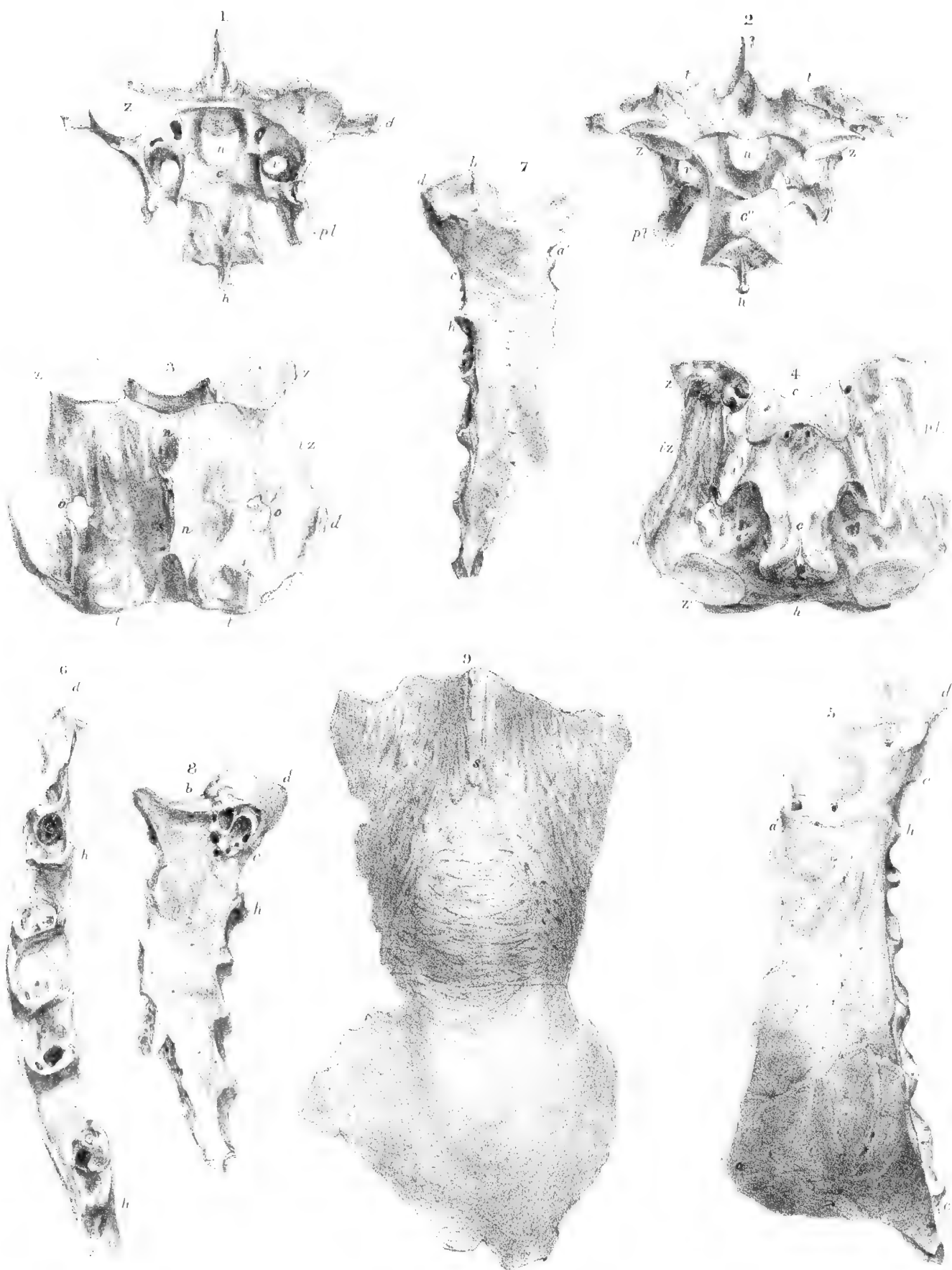


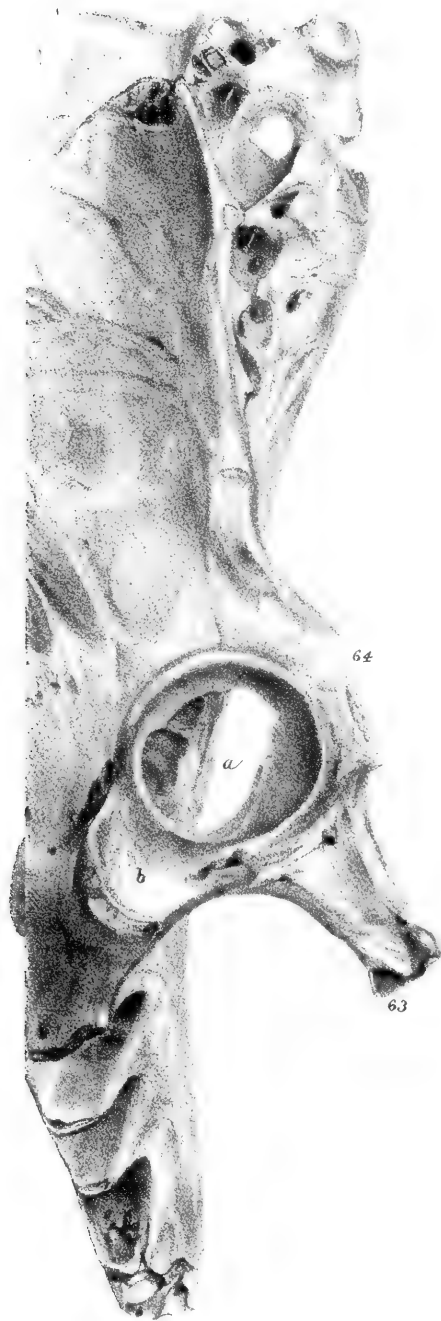


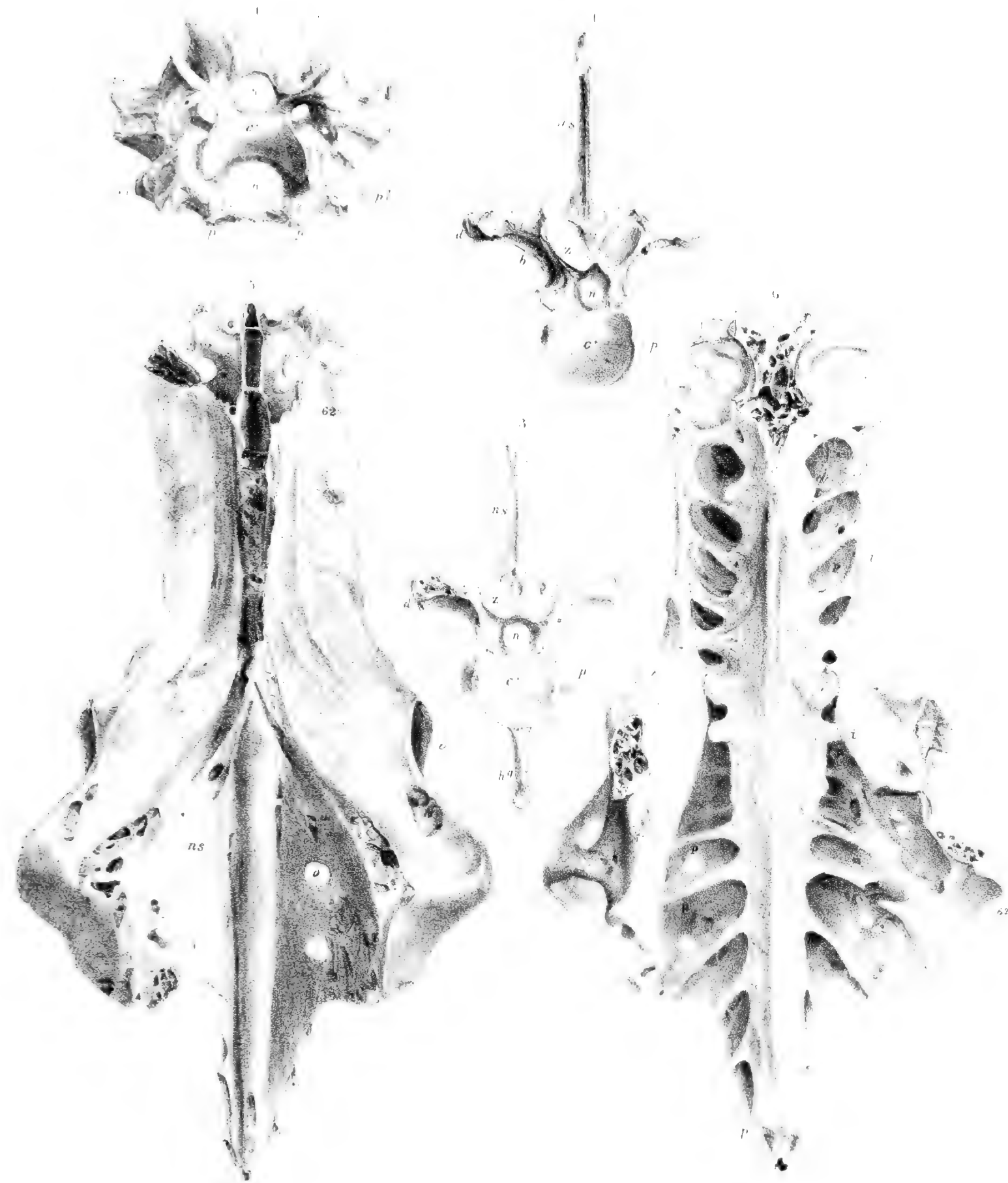


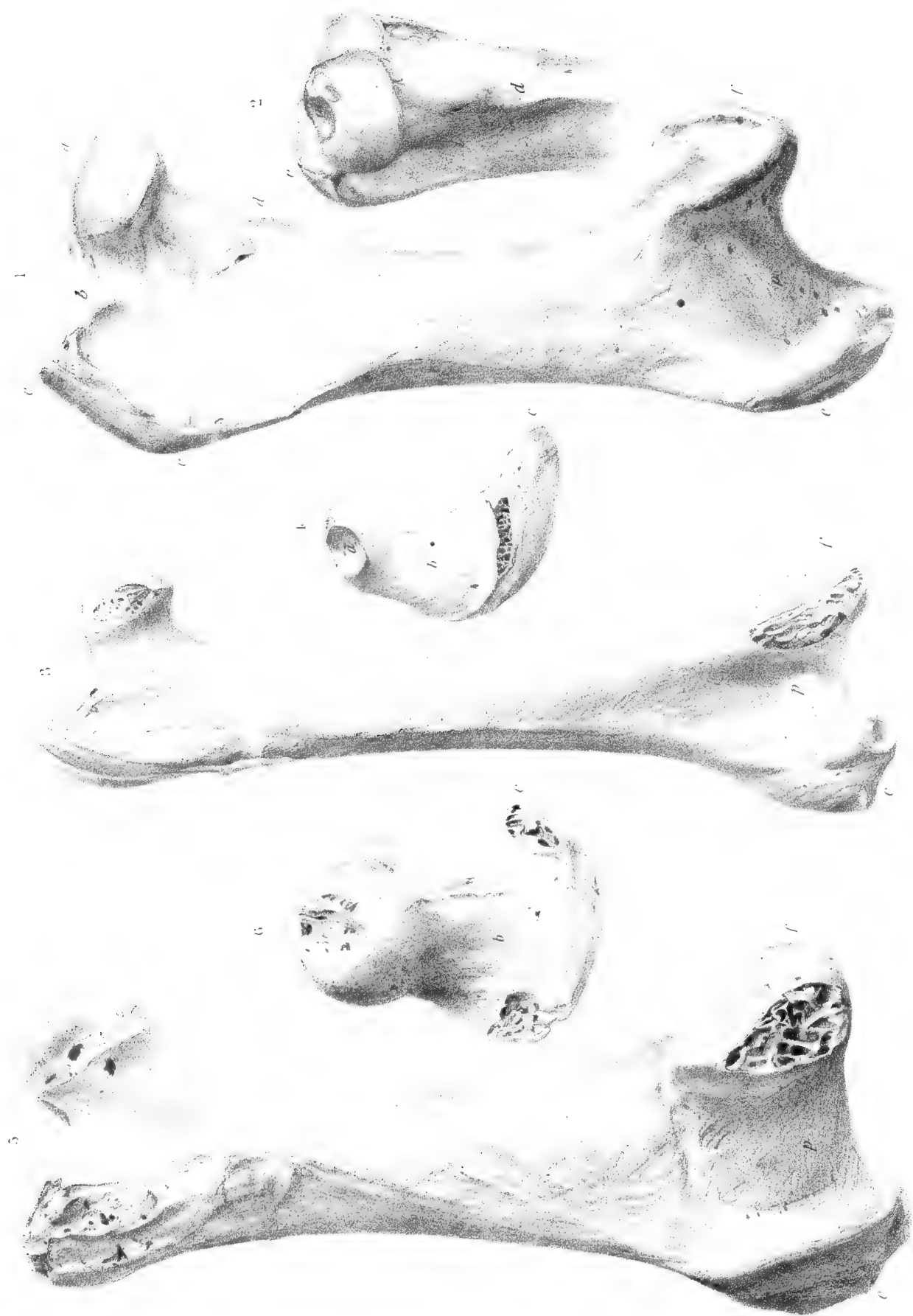












From Nature in South Africa.

1 2 CNEFICKNIS 3 4 ALFONNIS 5 6 CERANO'DES

D. J. & Co. Limited, Lith. London



From Nelson Stone by J. Huxleben

W. H. Huxley

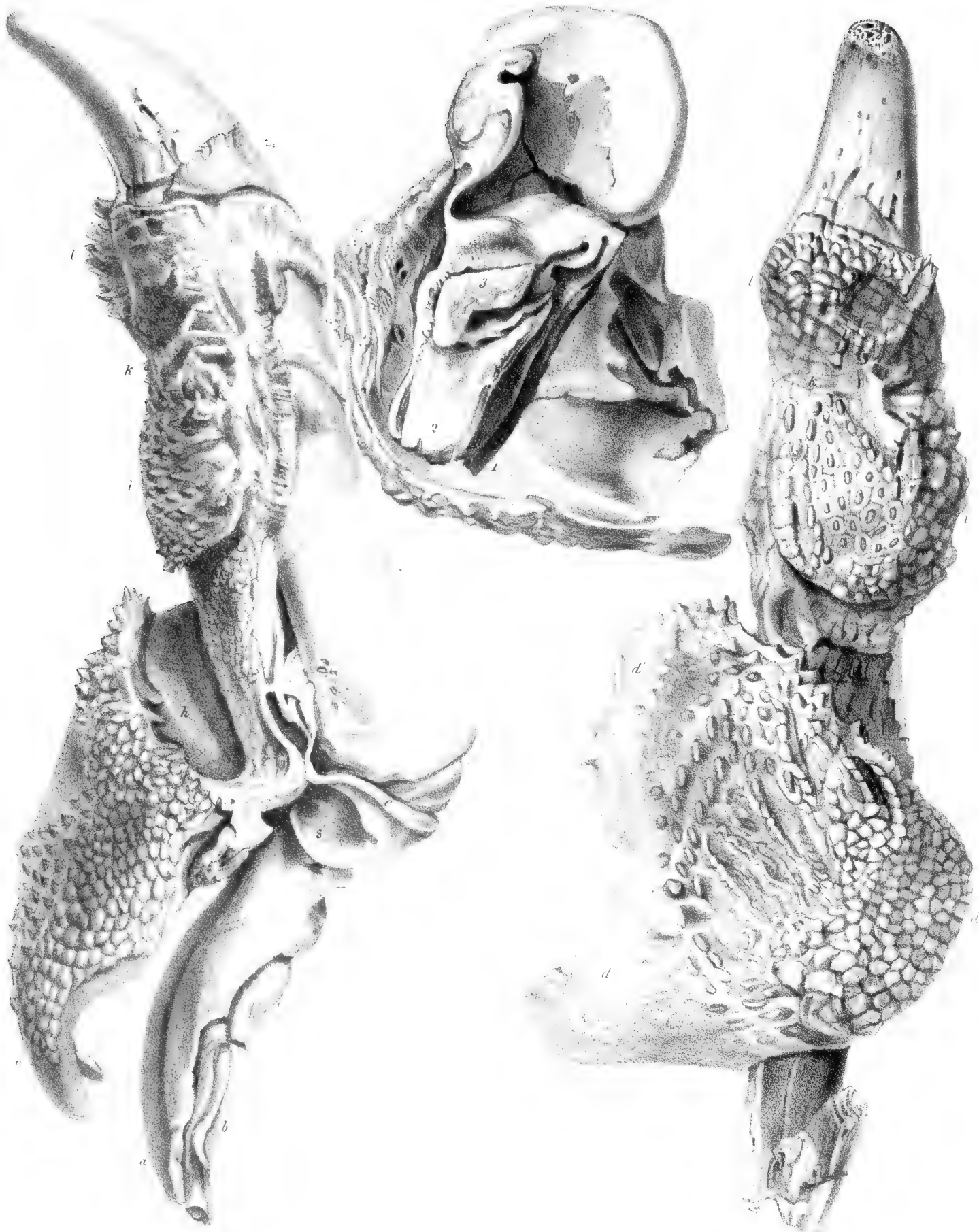
1. 4. CERNIORNIS. 5. 6. DIHORNIS GERATOIDES.





From Nature, from J. Huxley.

1871. Huxley.



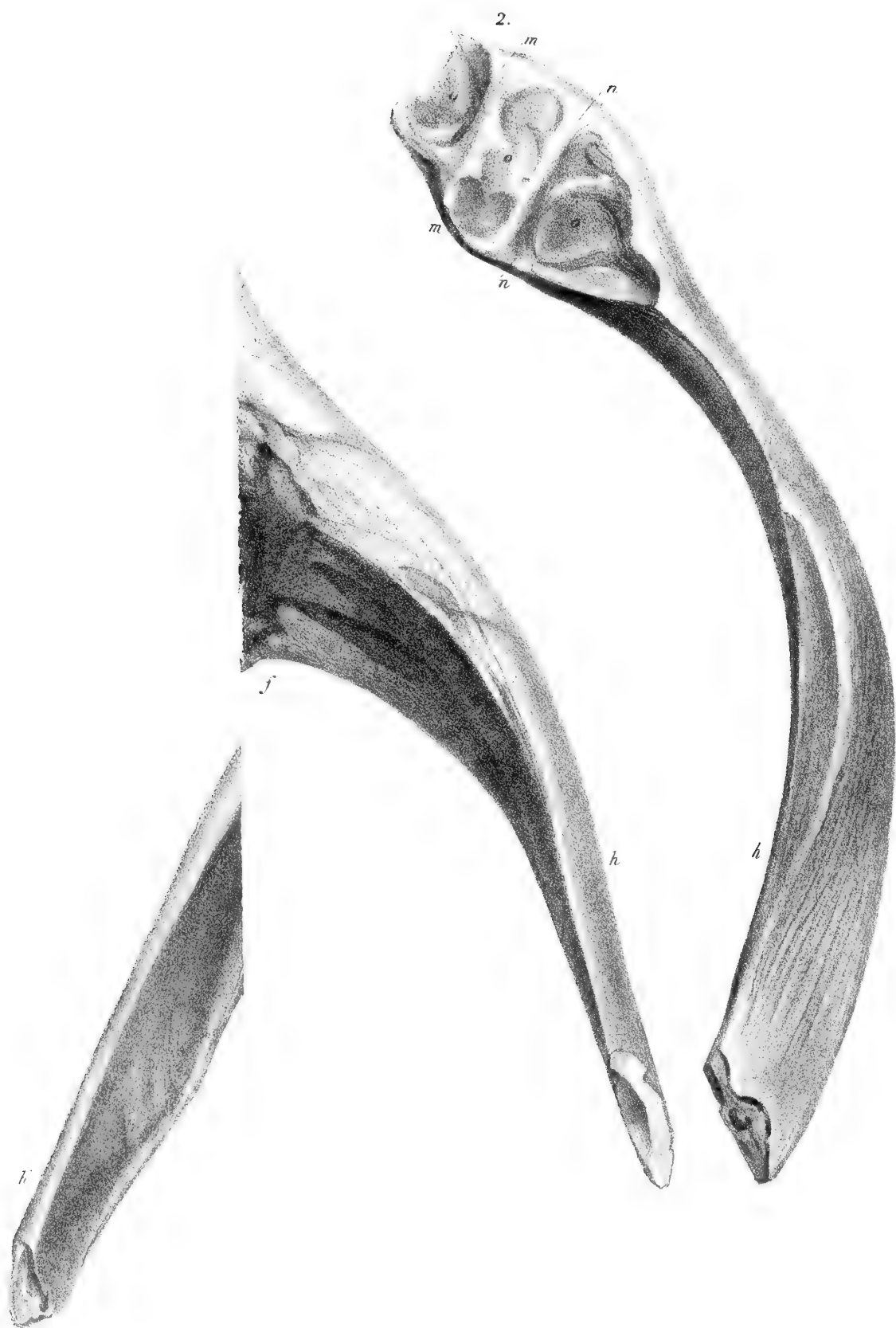
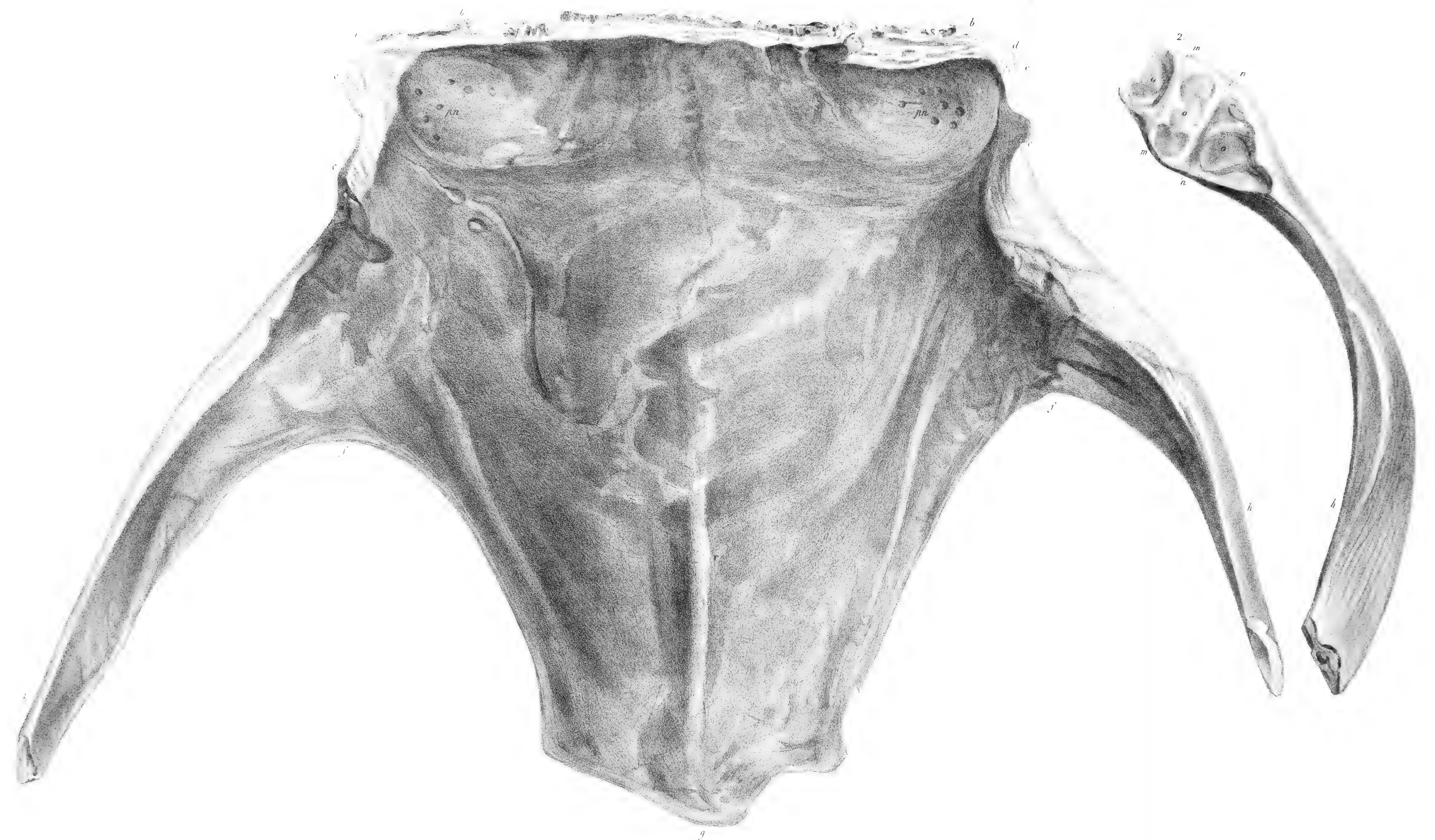


Fig. 1.

1.



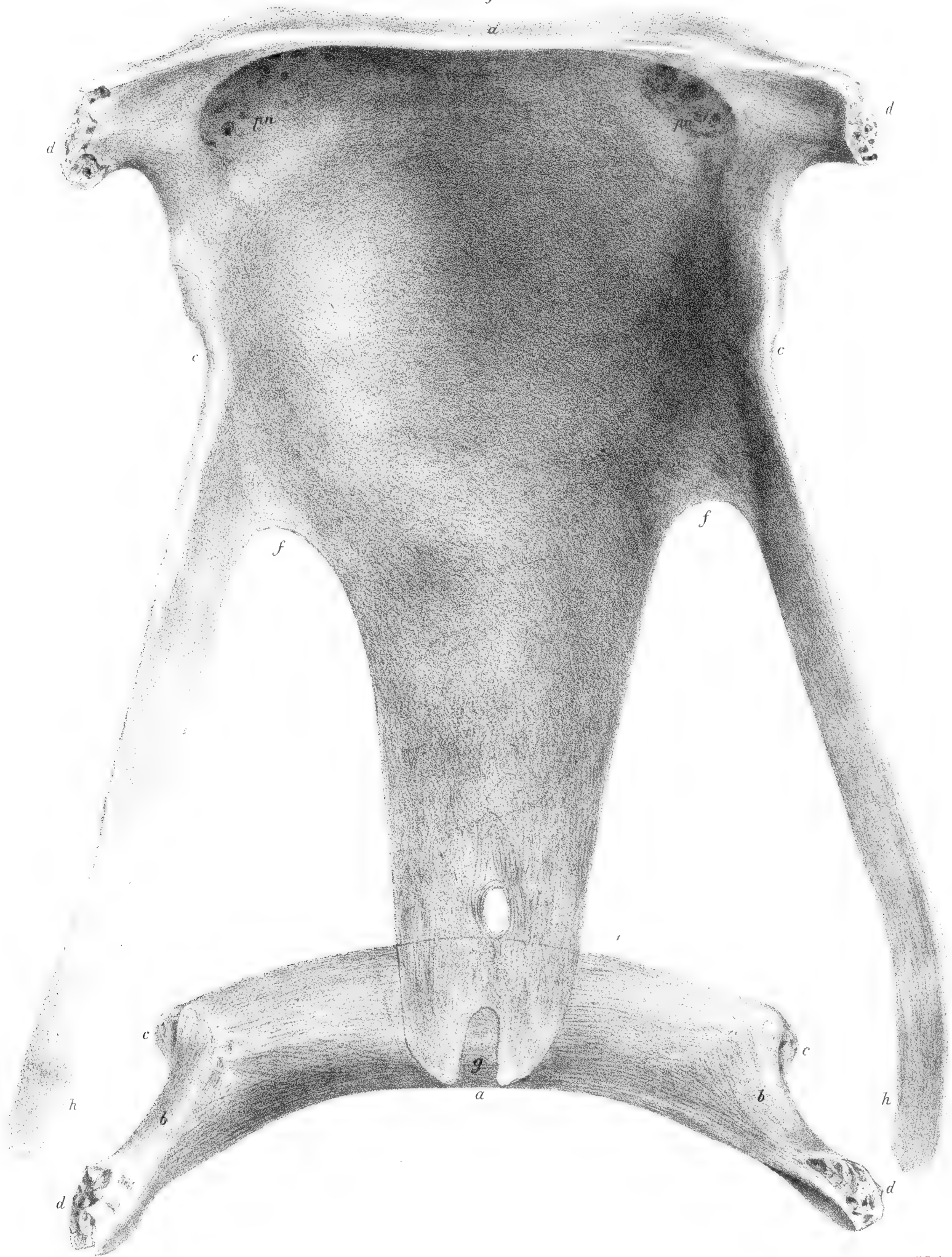
9

Fig. 2.

2.



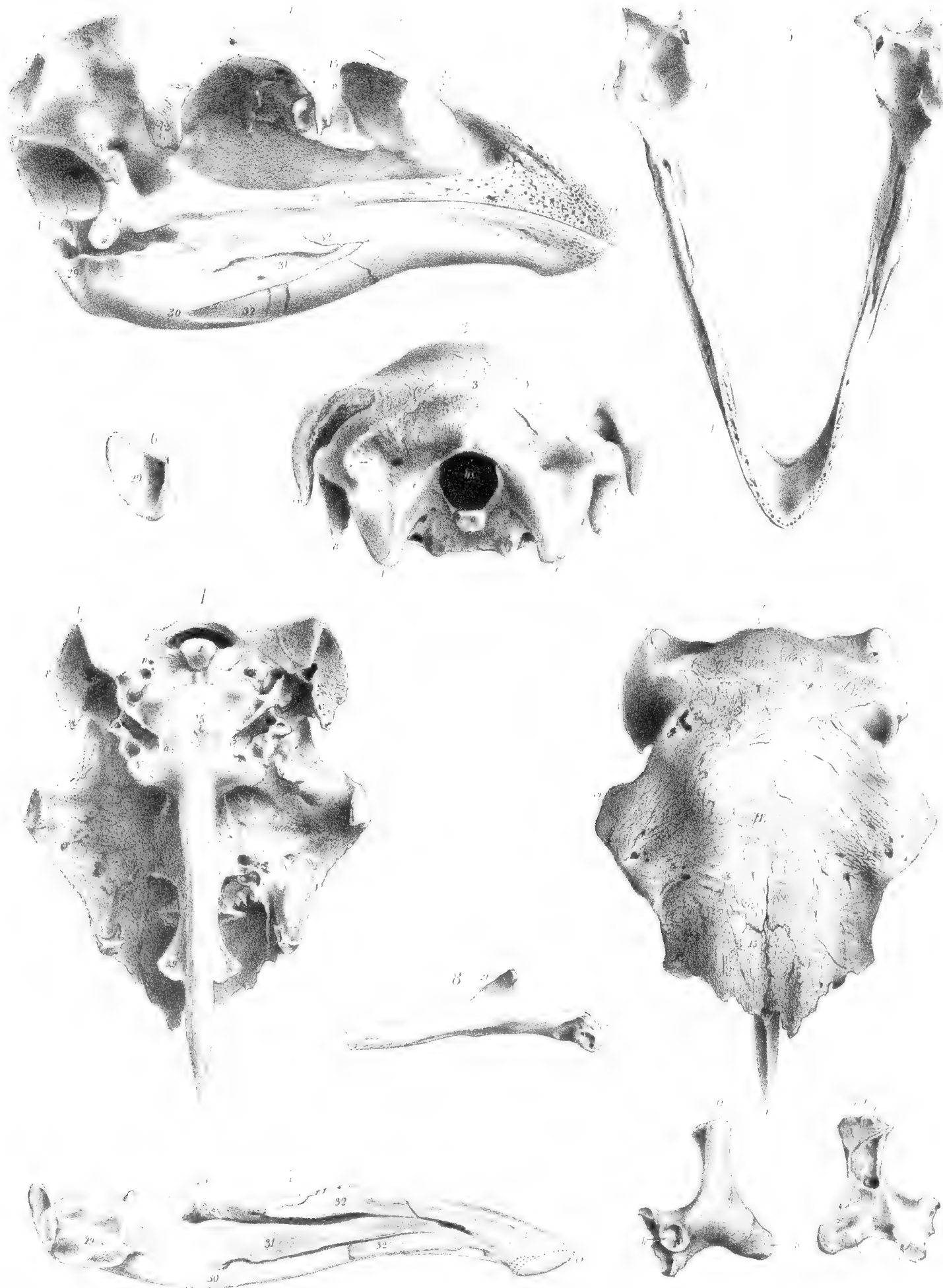


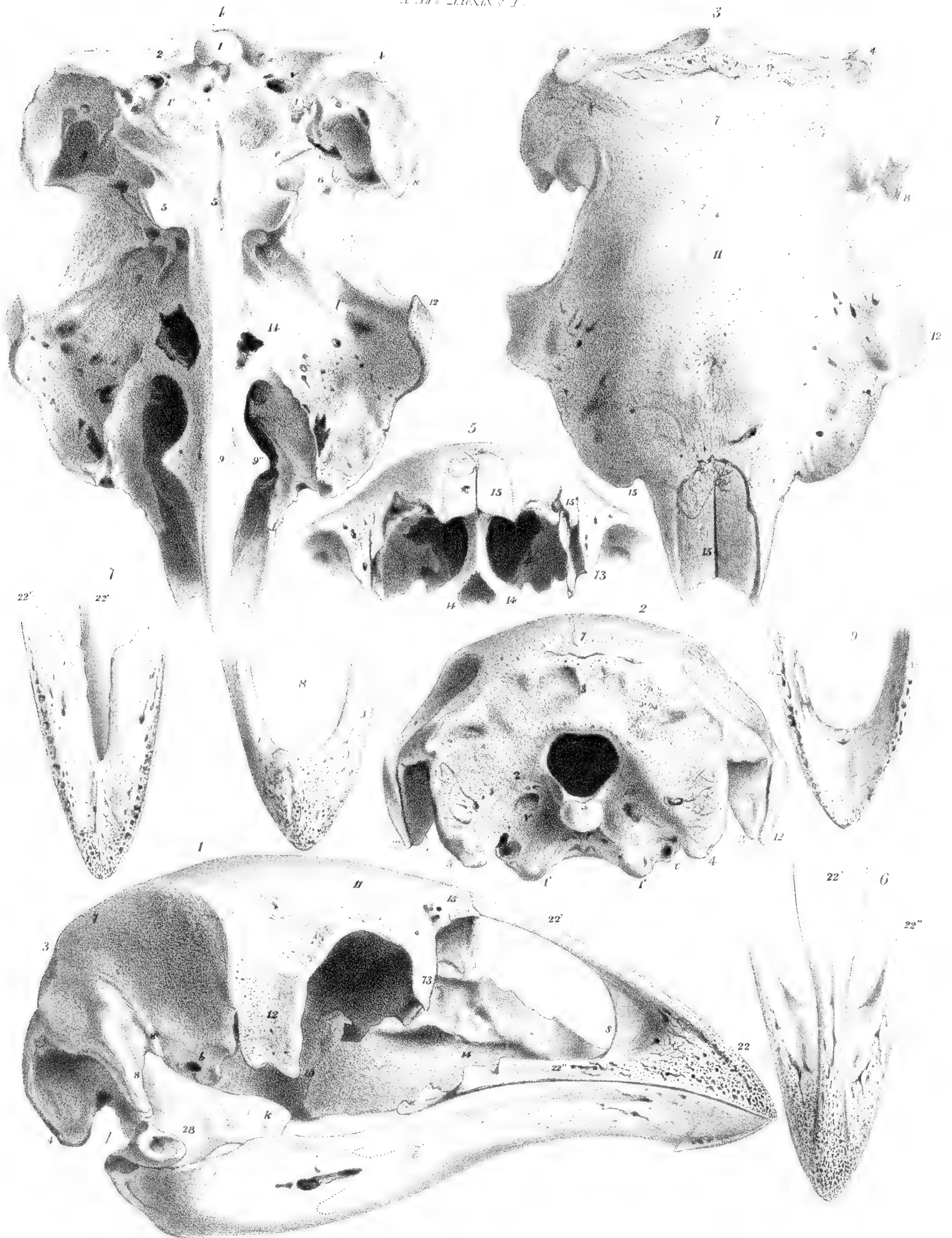


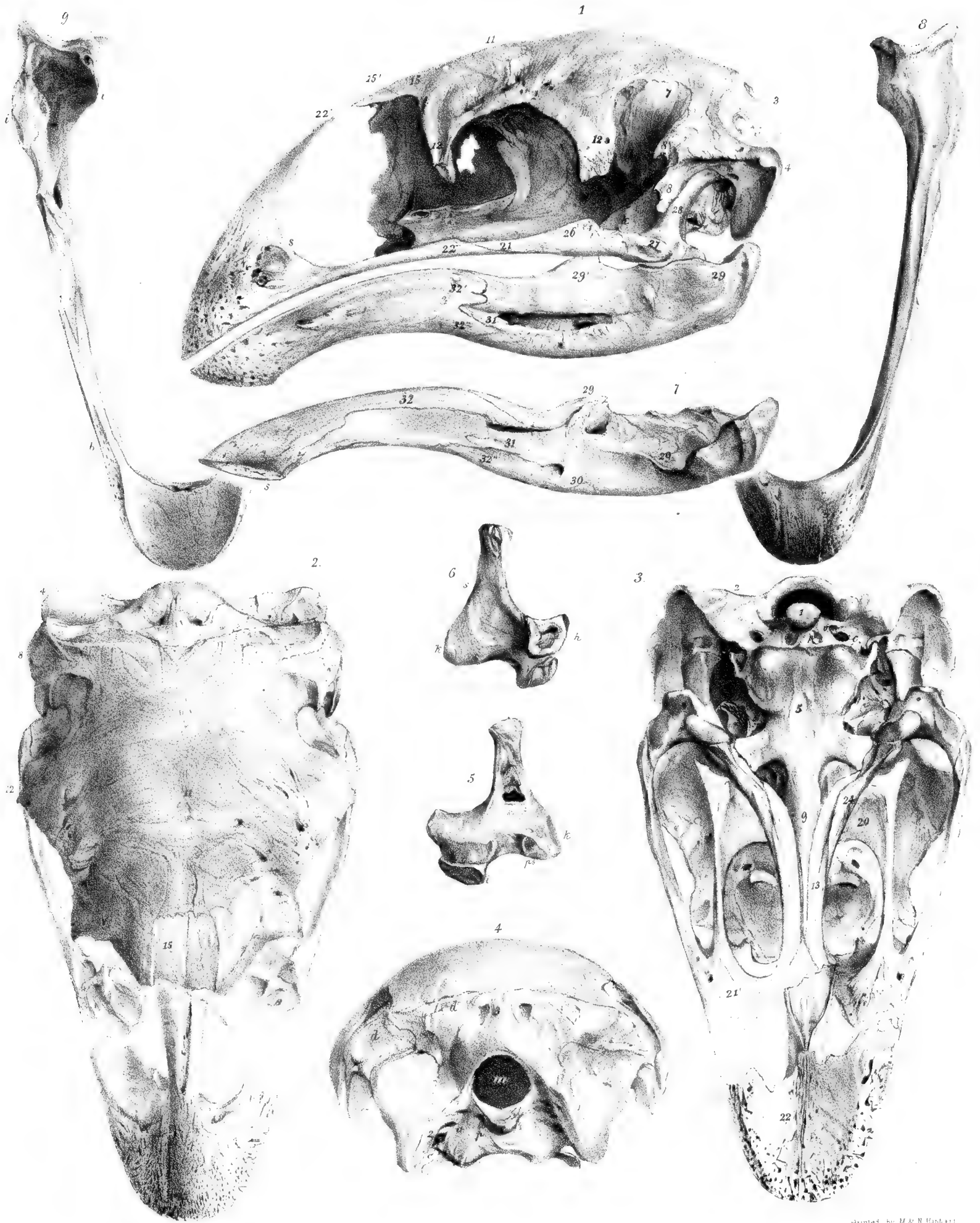
From nature on stone by J. E. H. 1844

M. & N. Hanhart imp

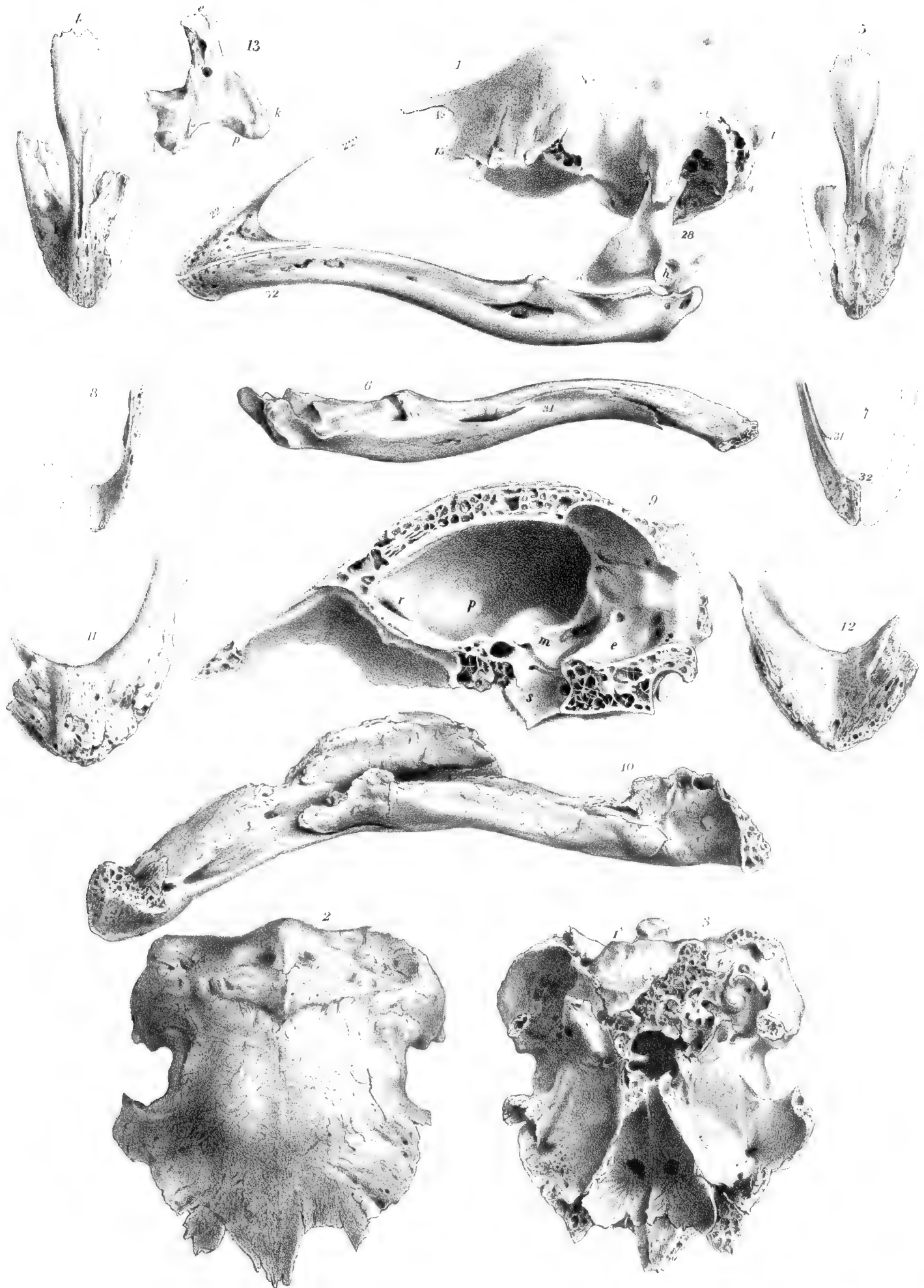
DINORNIS RHEIDES.

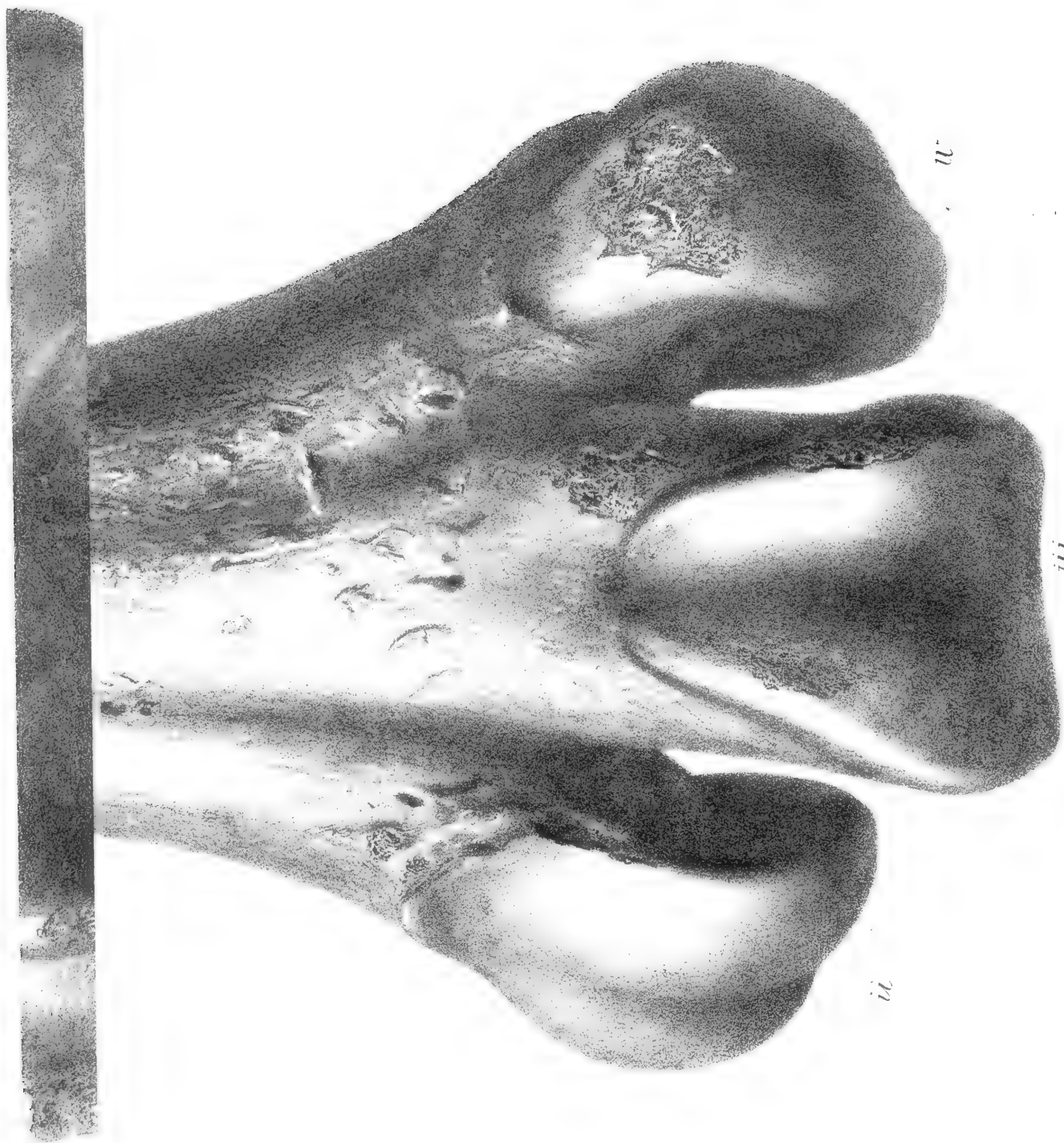






Printed by M. N. Hankart





ii

iii

iv

DINORNIS MAXIMUS.

Fig. 1. x = 100.

Mon. Humboldt 1870.



Fig. 1

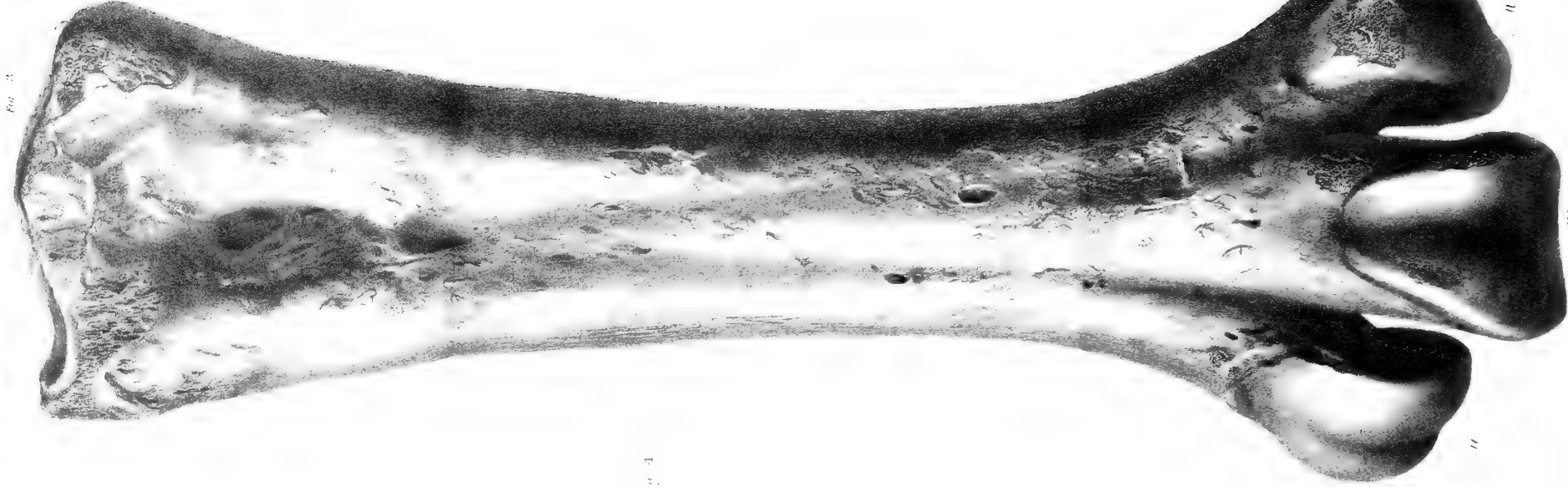


Fig. 2

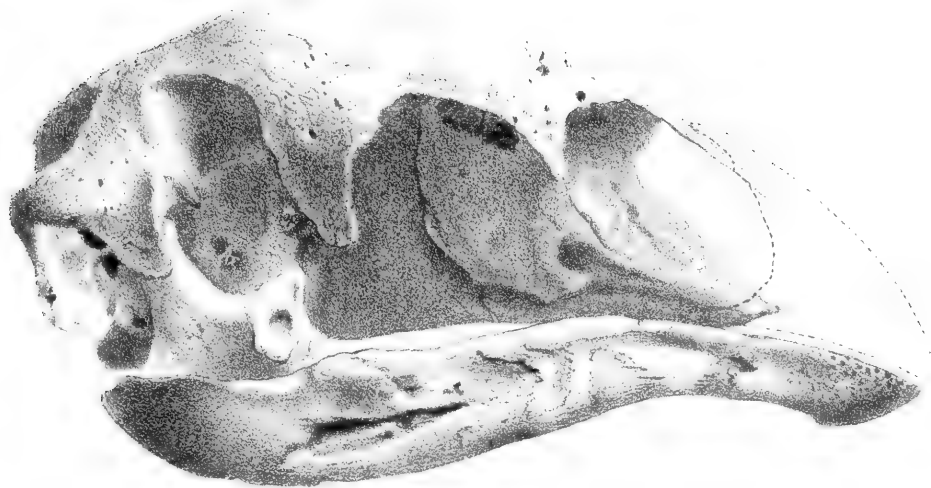
Fig. 3



Fig. 4



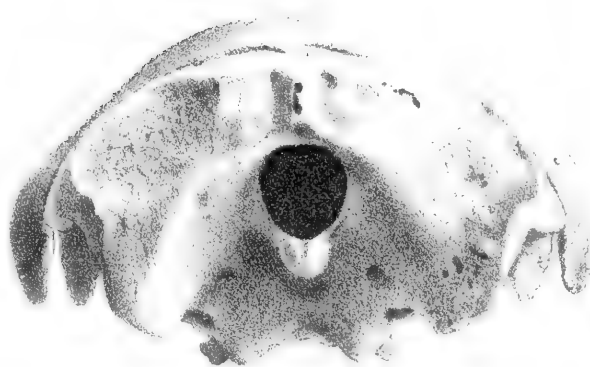
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4



2



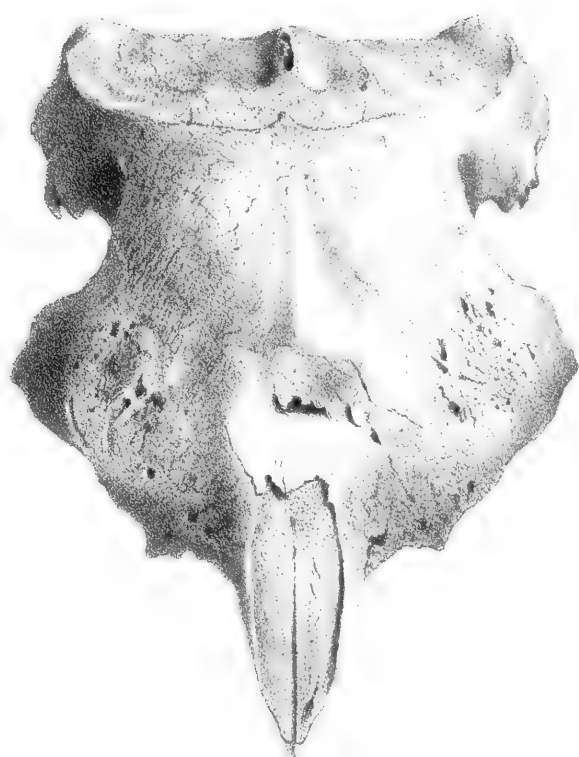
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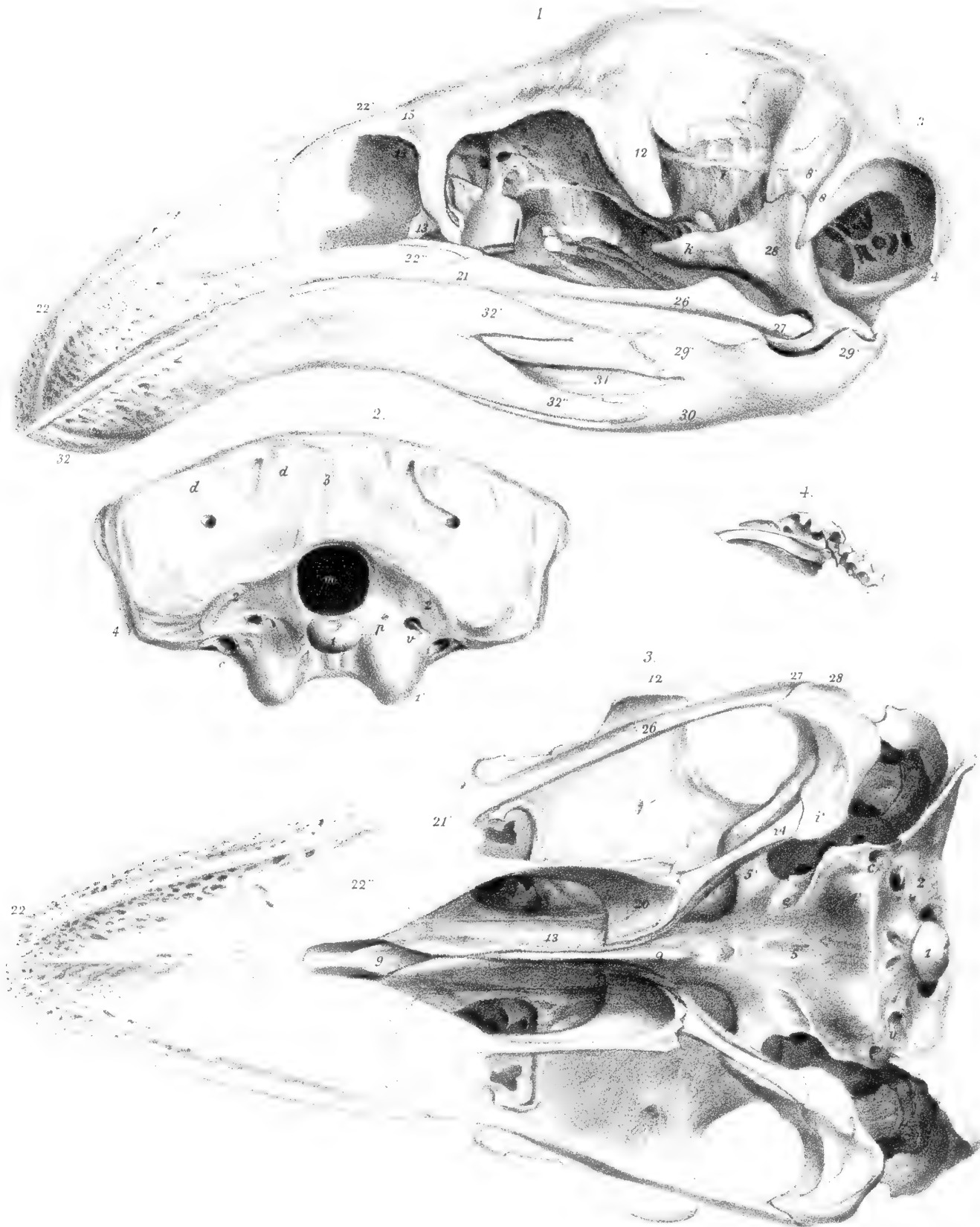


4



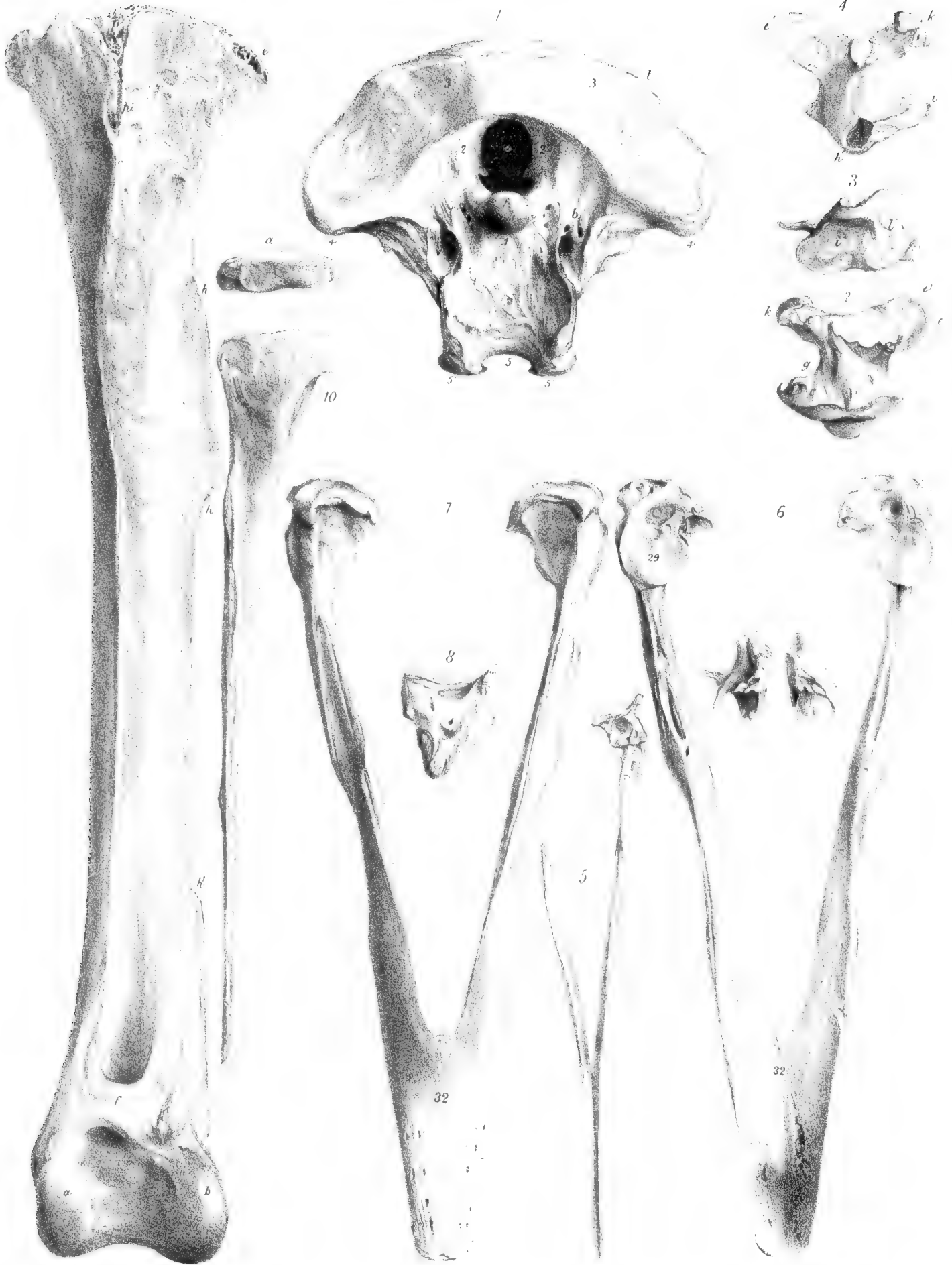
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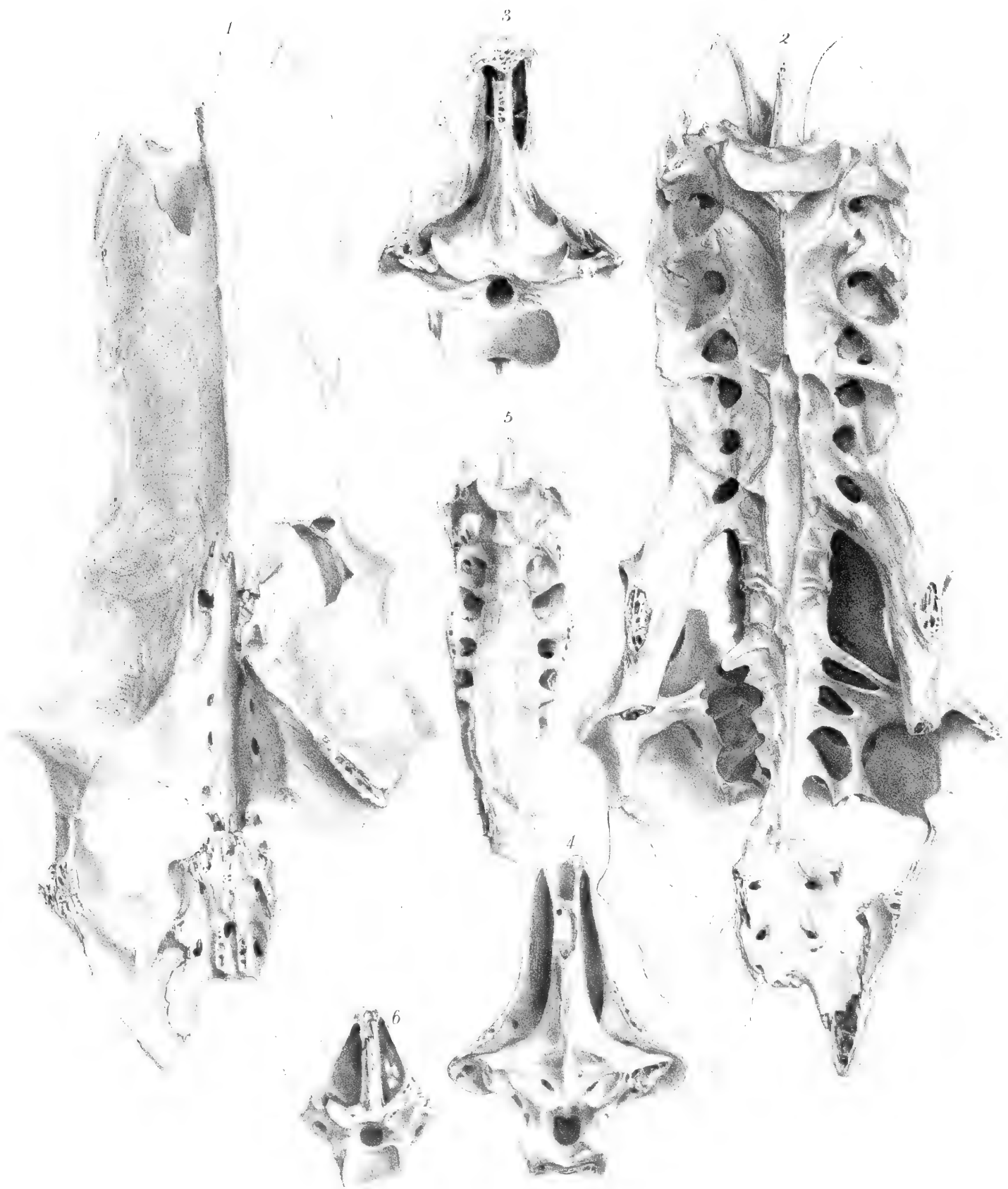


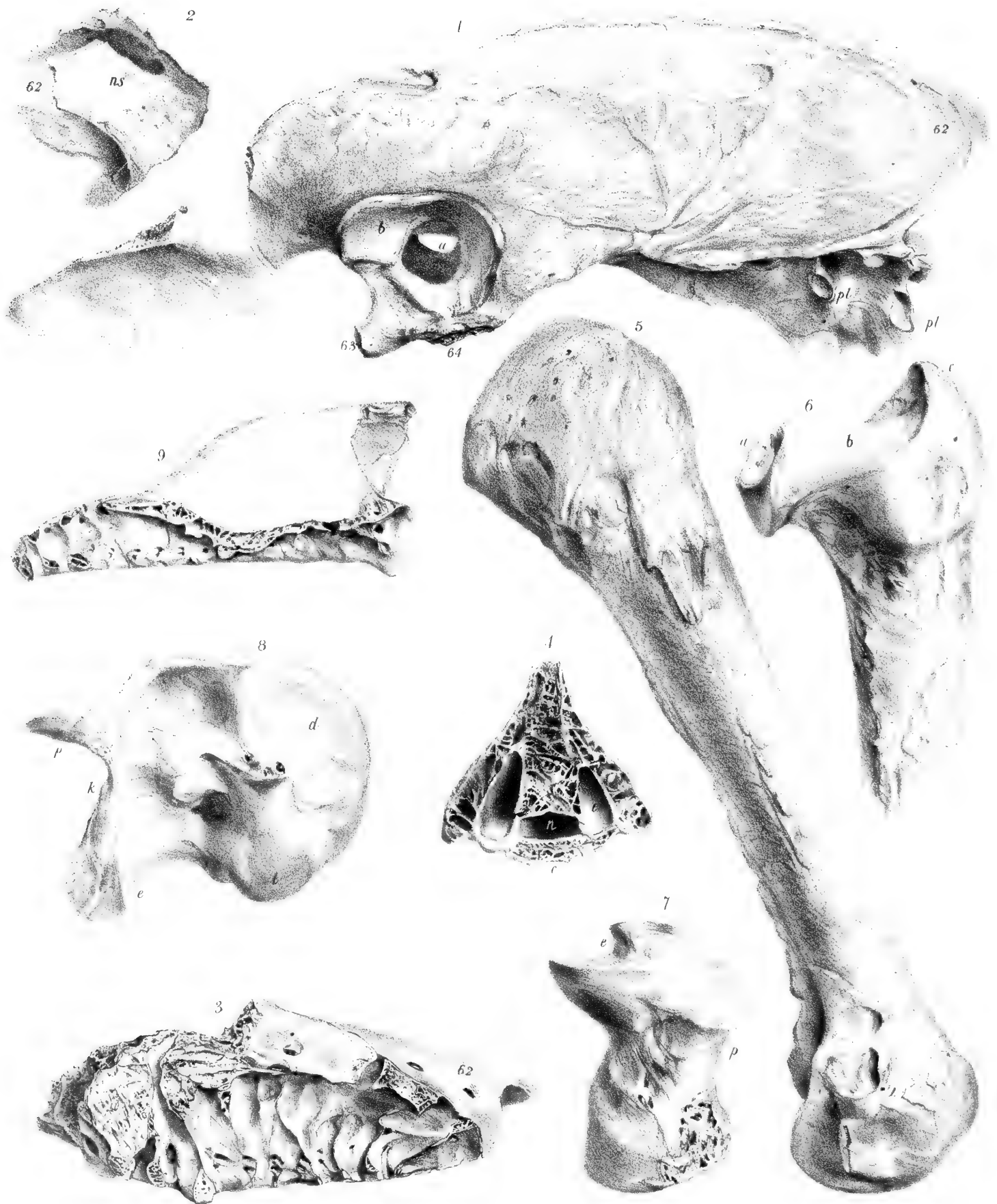
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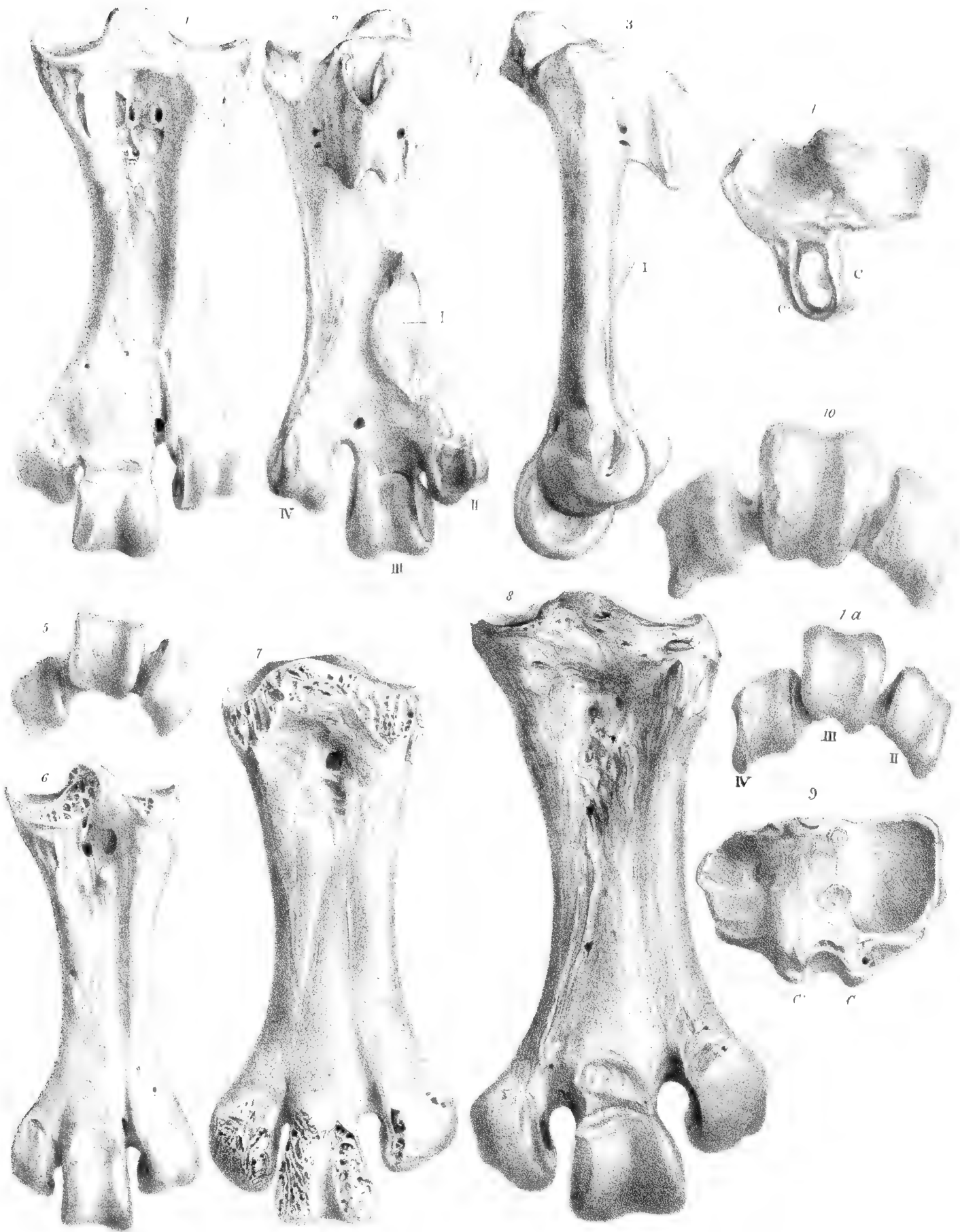


From nat. on stone by J. J. J. J.

Printed by M. J. J. J.



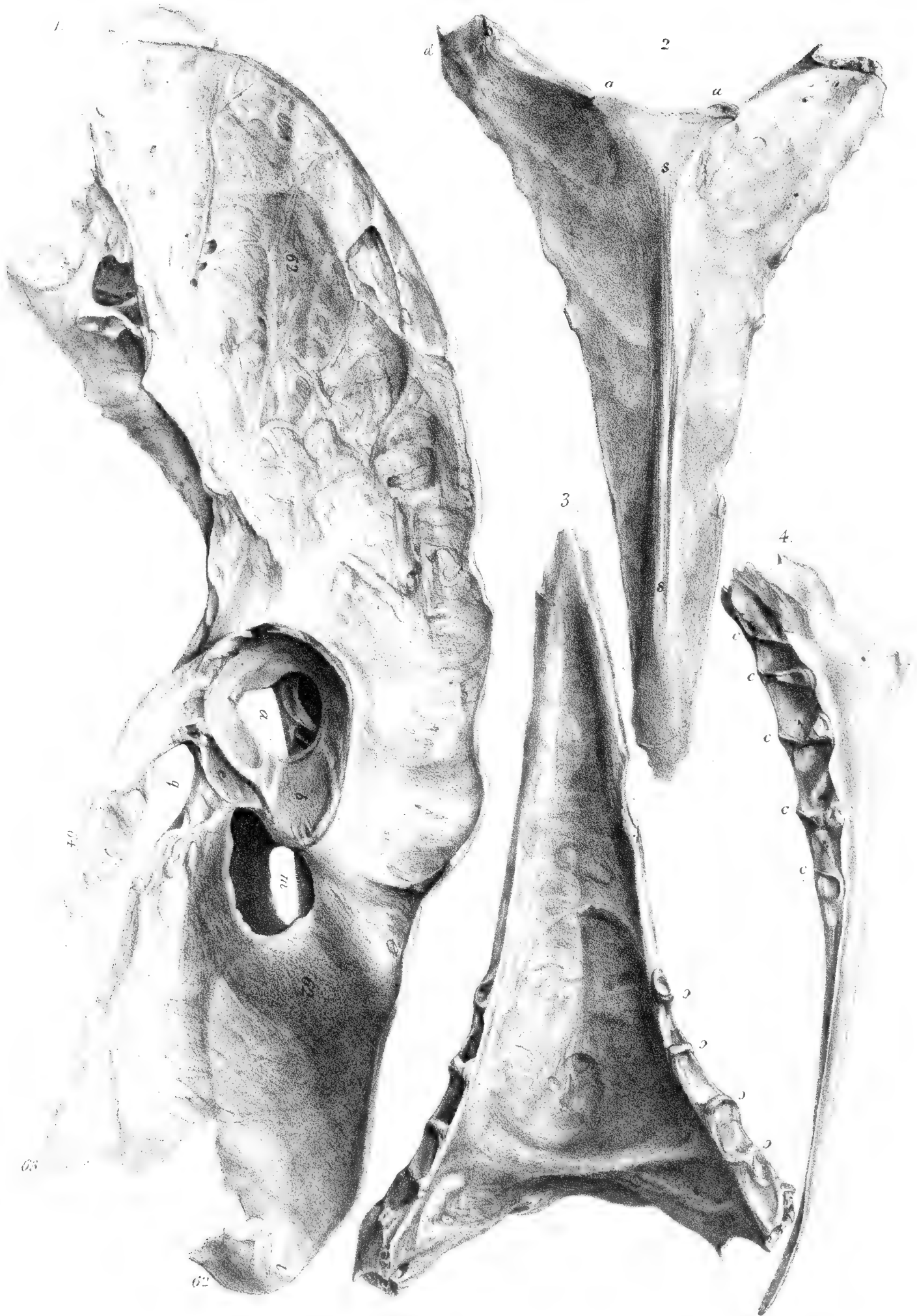


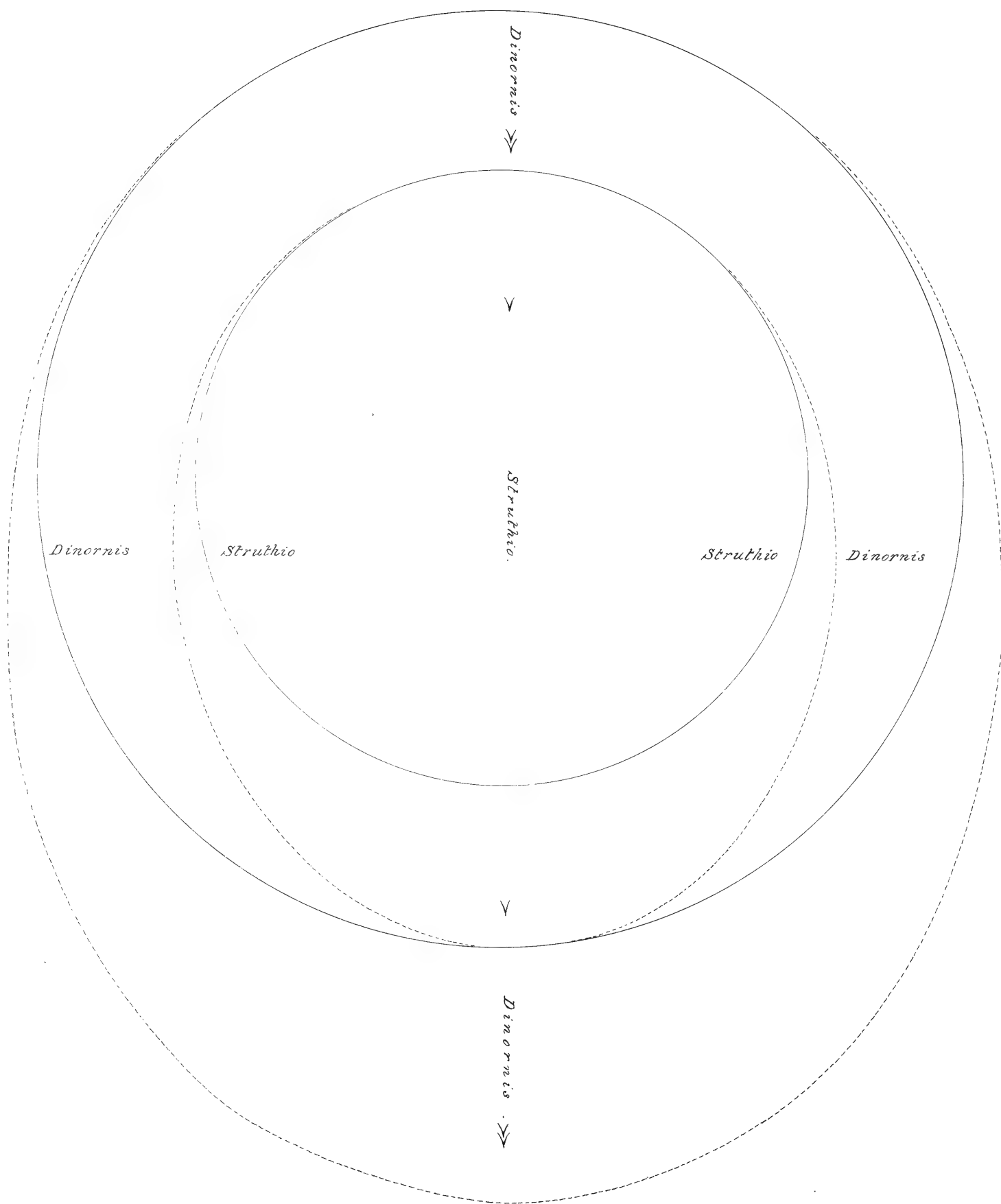


from nat. in stone by J. Erxleben.

Printed by M. & N. Harcourt.

1. 5. APTORNIS DEFOSSOR. 6. APTORNIS CTIDIFORMIS, 7. 10. DINORNIS CURTICE





COMPARATIVE DIMENSIONS OF EGGS OF DINORNIS ELEPHANTOPUS & STRUTHIO CAMELUS.

Fig. 1.

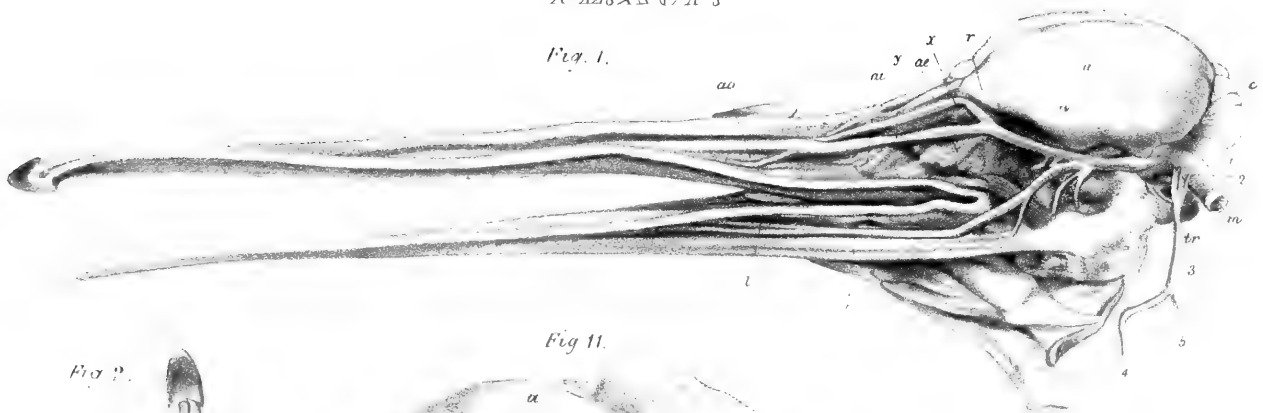


Fig. 2.



Fig. 11.

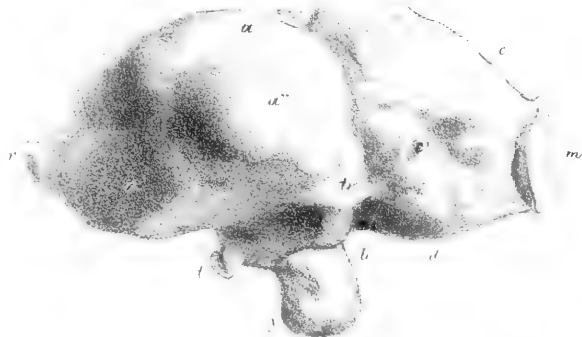


Fig. 5.



Fig. 6.

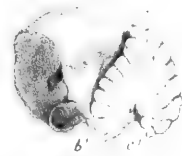


Fig. 7.

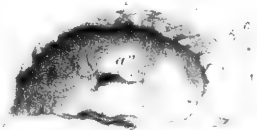


Fig. 8.



Fig. 9.

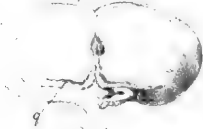


Fig. 10.



Fig. 13.



Fig. 4.

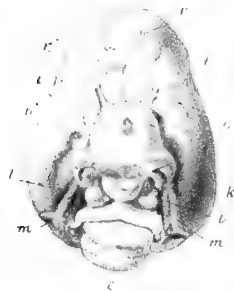


Fig. 3.

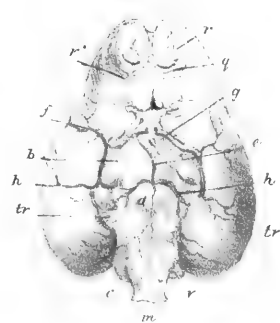


Fig. 1.

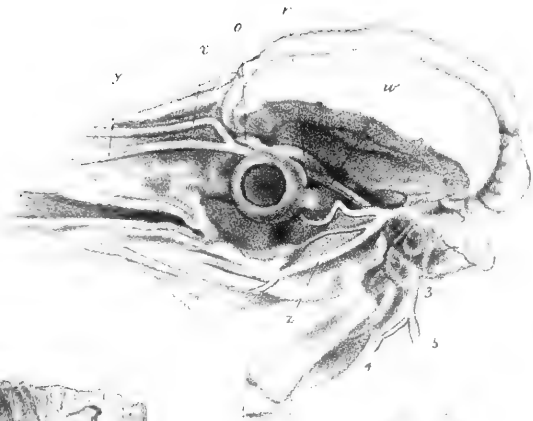


Fig. 2.

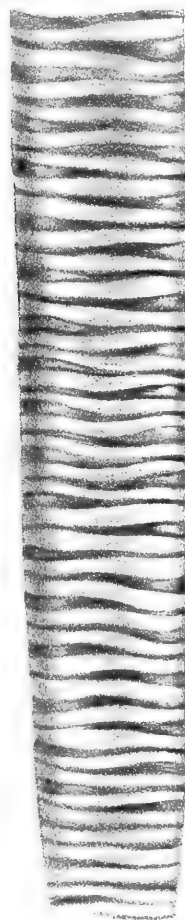
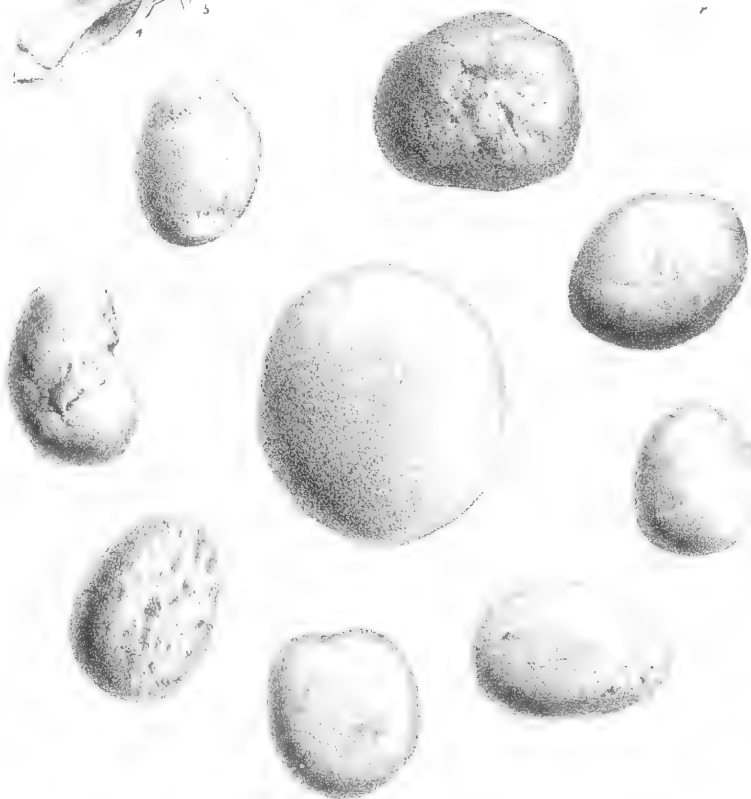
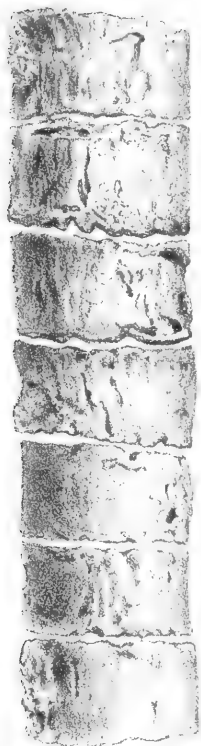
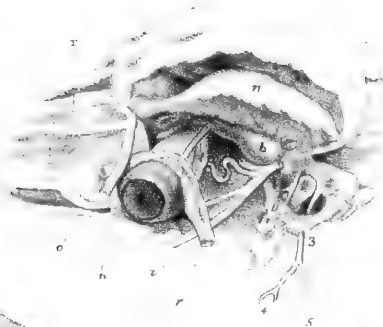
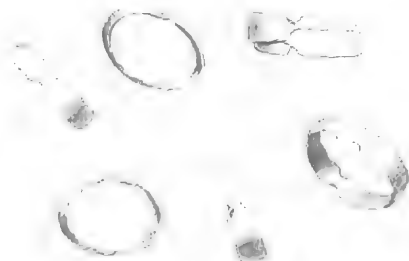
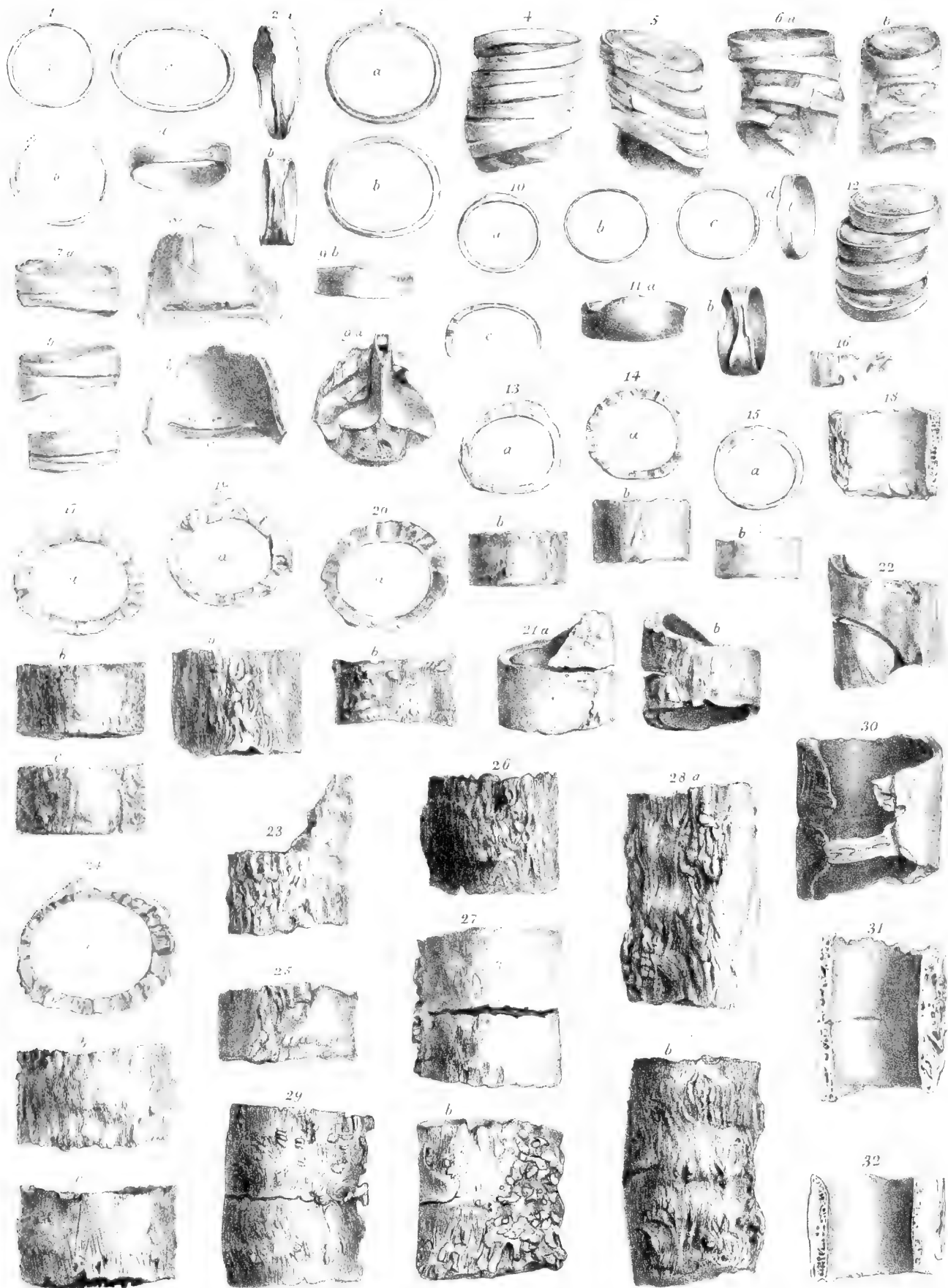


Fig. 3.



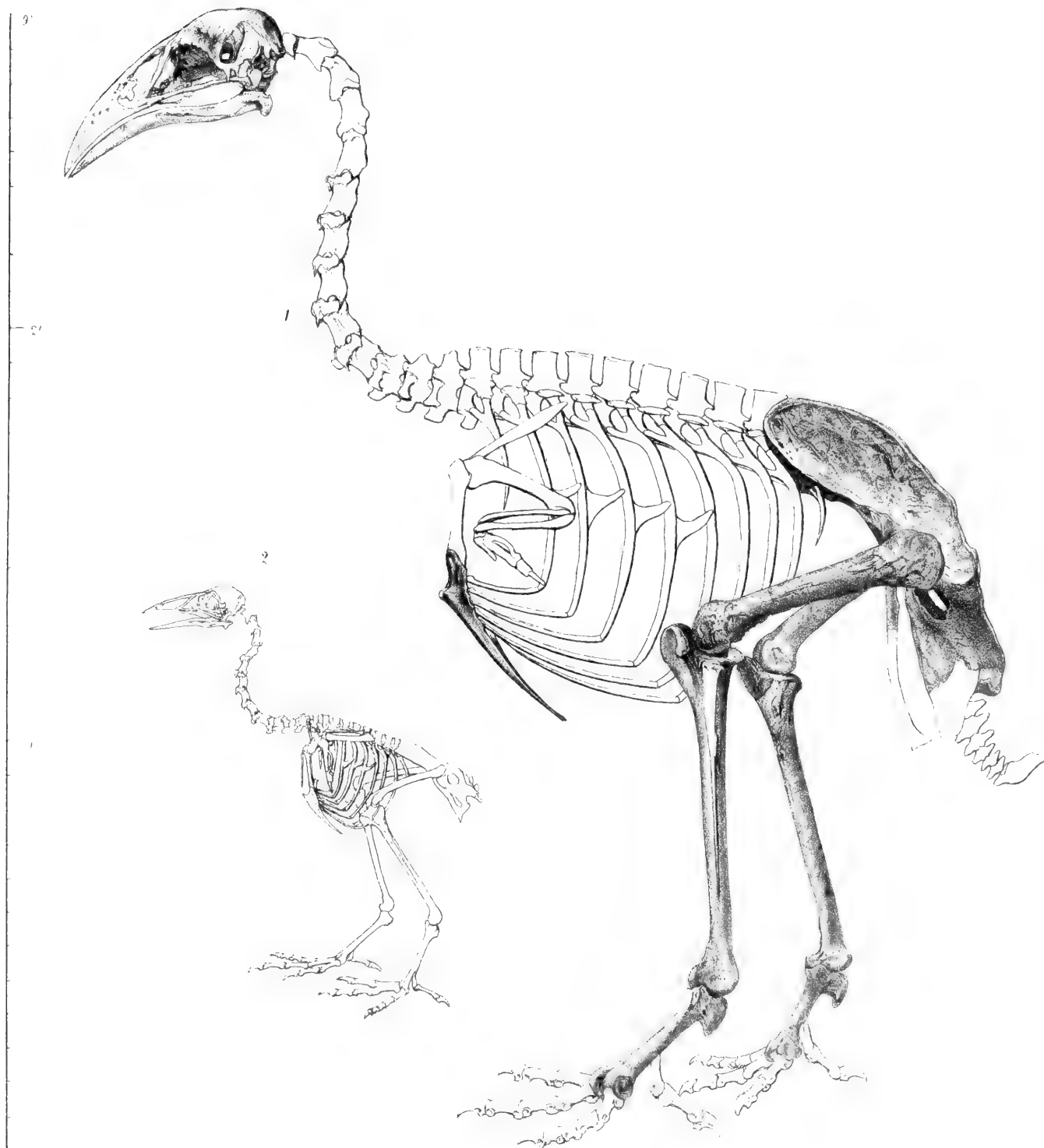
Fig. 4.

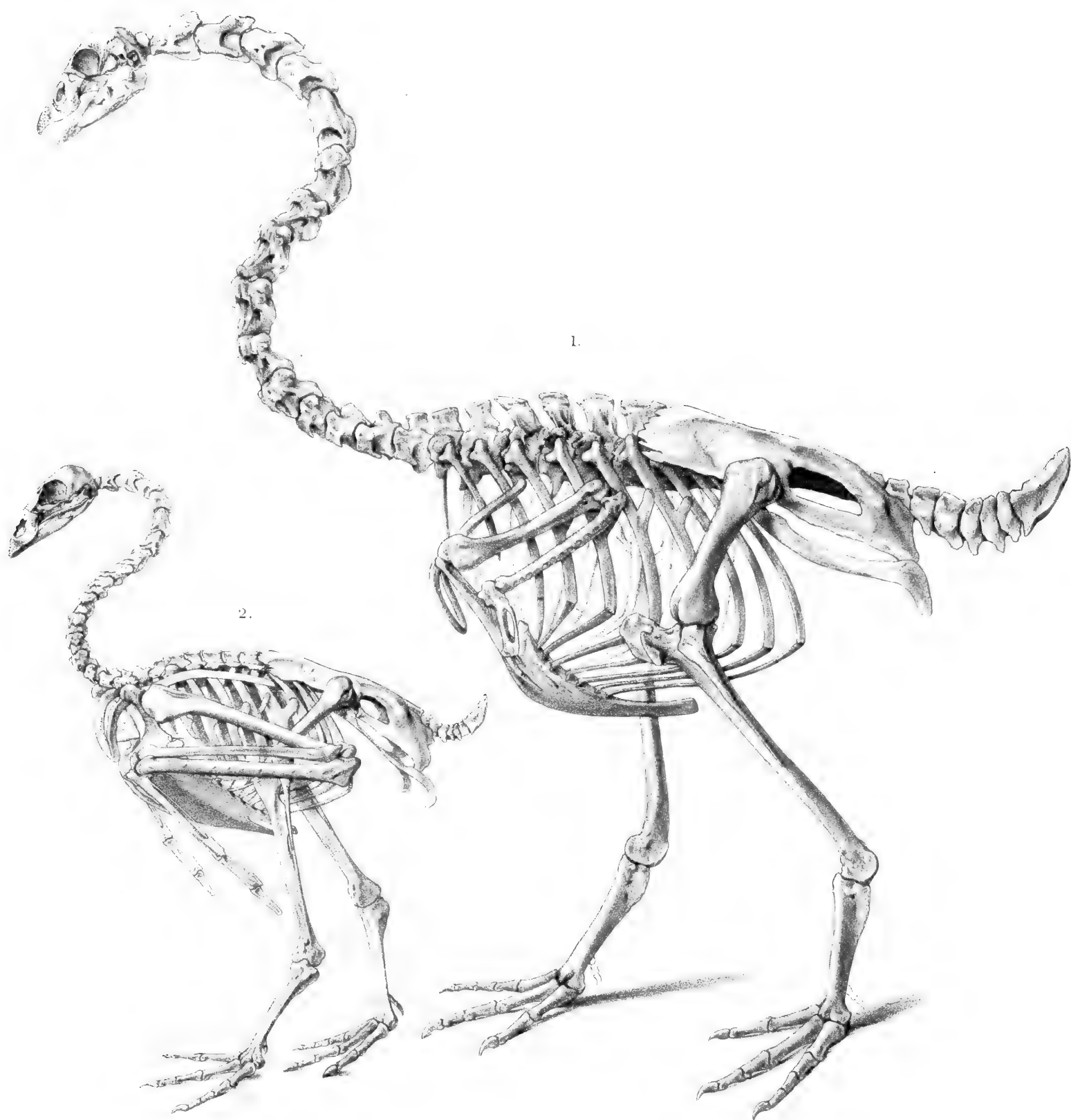




From cast on Stone by J. E. Richardson

M. & N. Parham, in

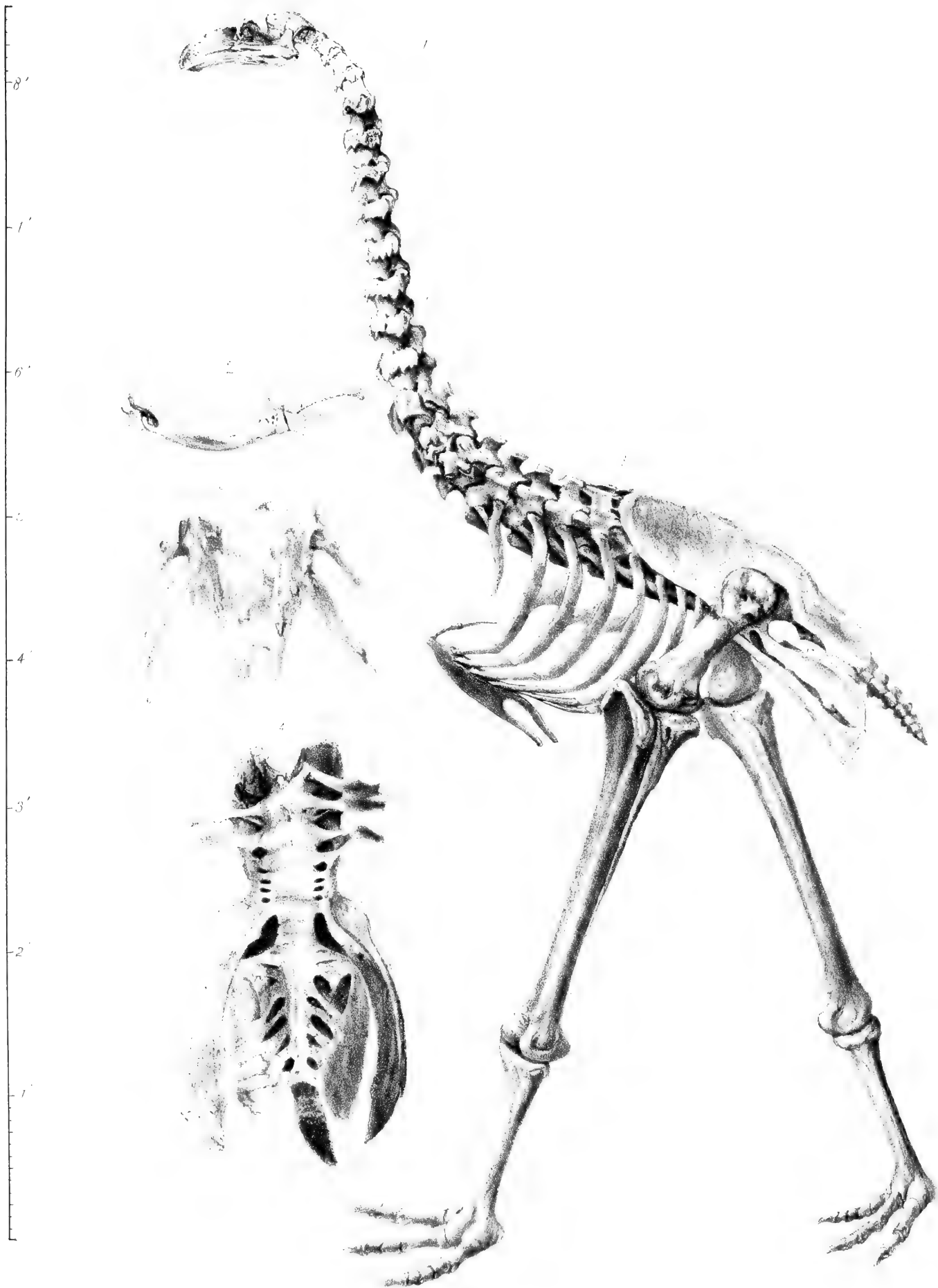




R. O. del. Griesbach lith.

Mintern Bros. imp.

1 CNEMIORNIS CALCITRANS. 2 CEREOPSIS NOVAE HOLLANDIAE.



1. Den del af store hy (Fexleben)

M & N Hanhart imp.

DROMORNIS ROBUSTUS.

PL. XCVII.





PLATE XXV.

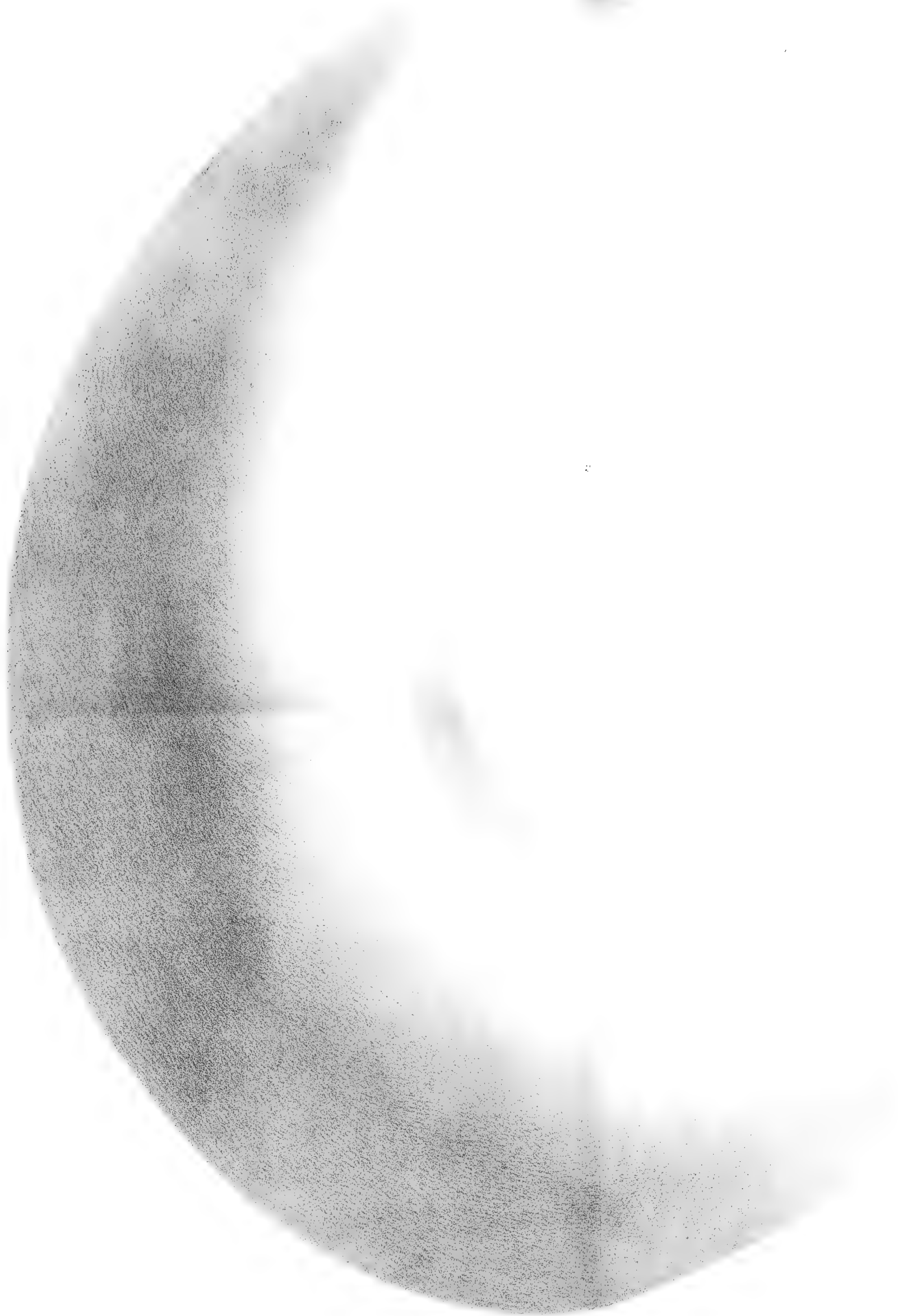


Fig. 1.

EGG OF *EPHRAIA MAXIMA*. — EGG OF *ADIE* IN AUSTRALIA.

Fig. 2.

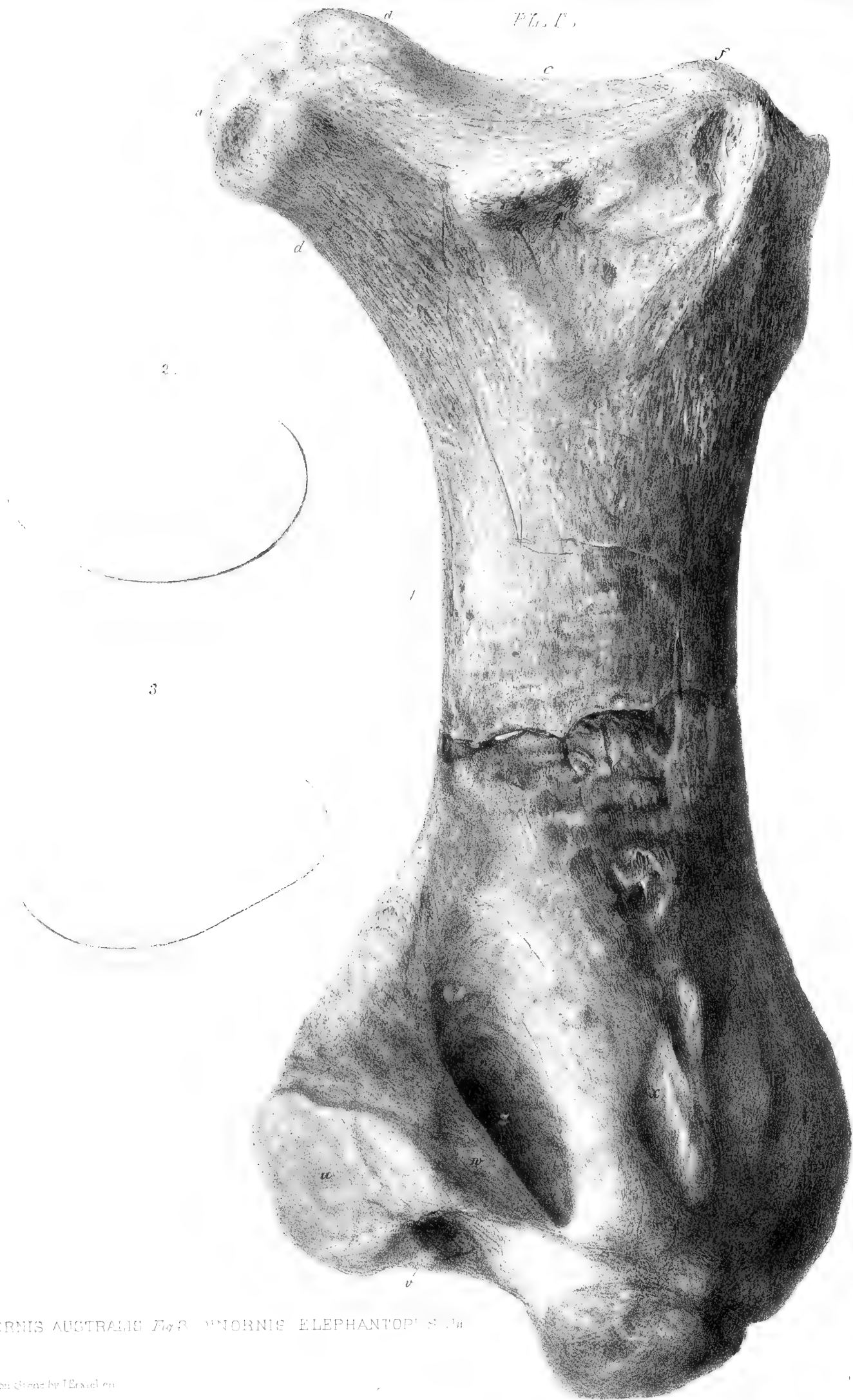
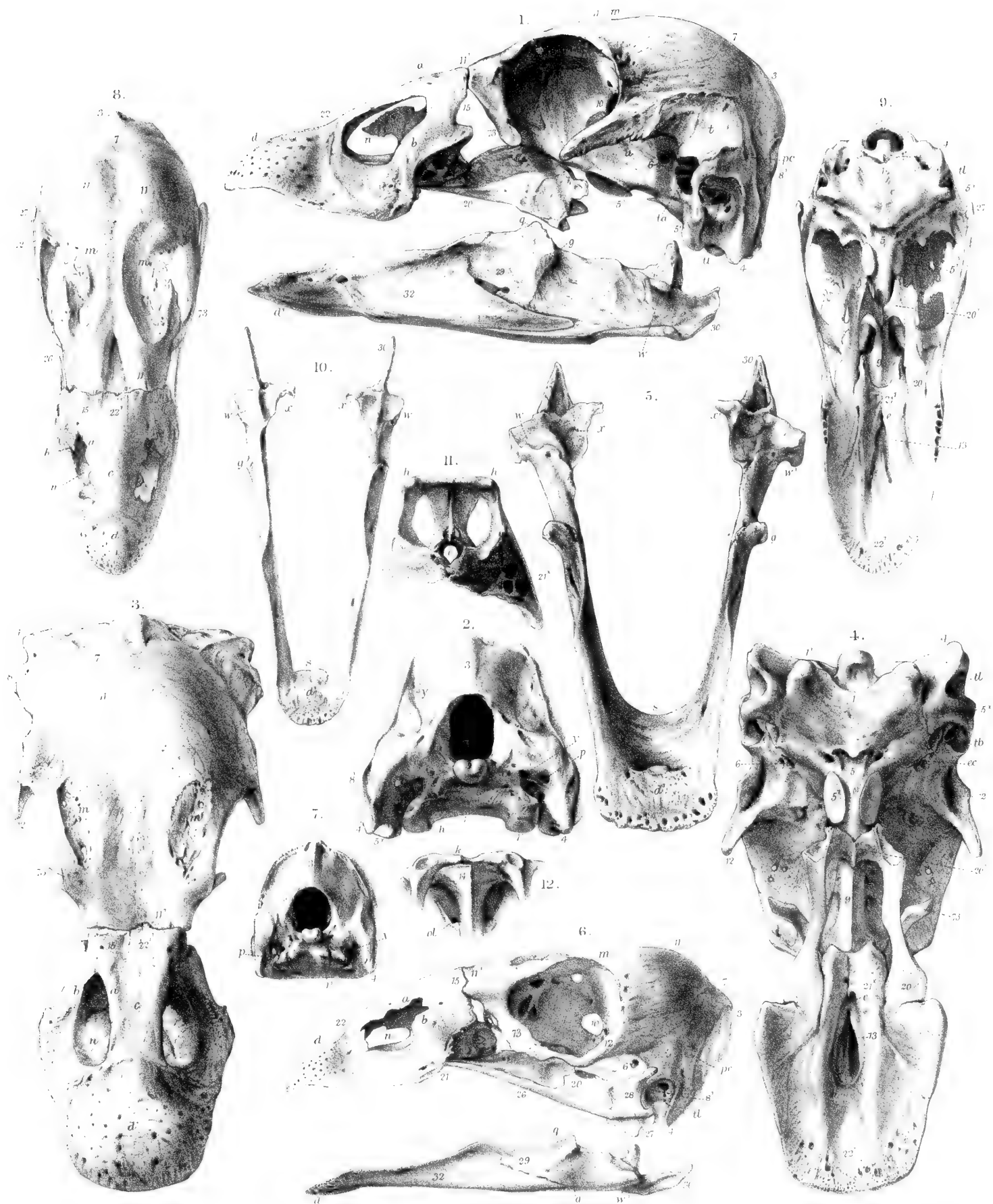
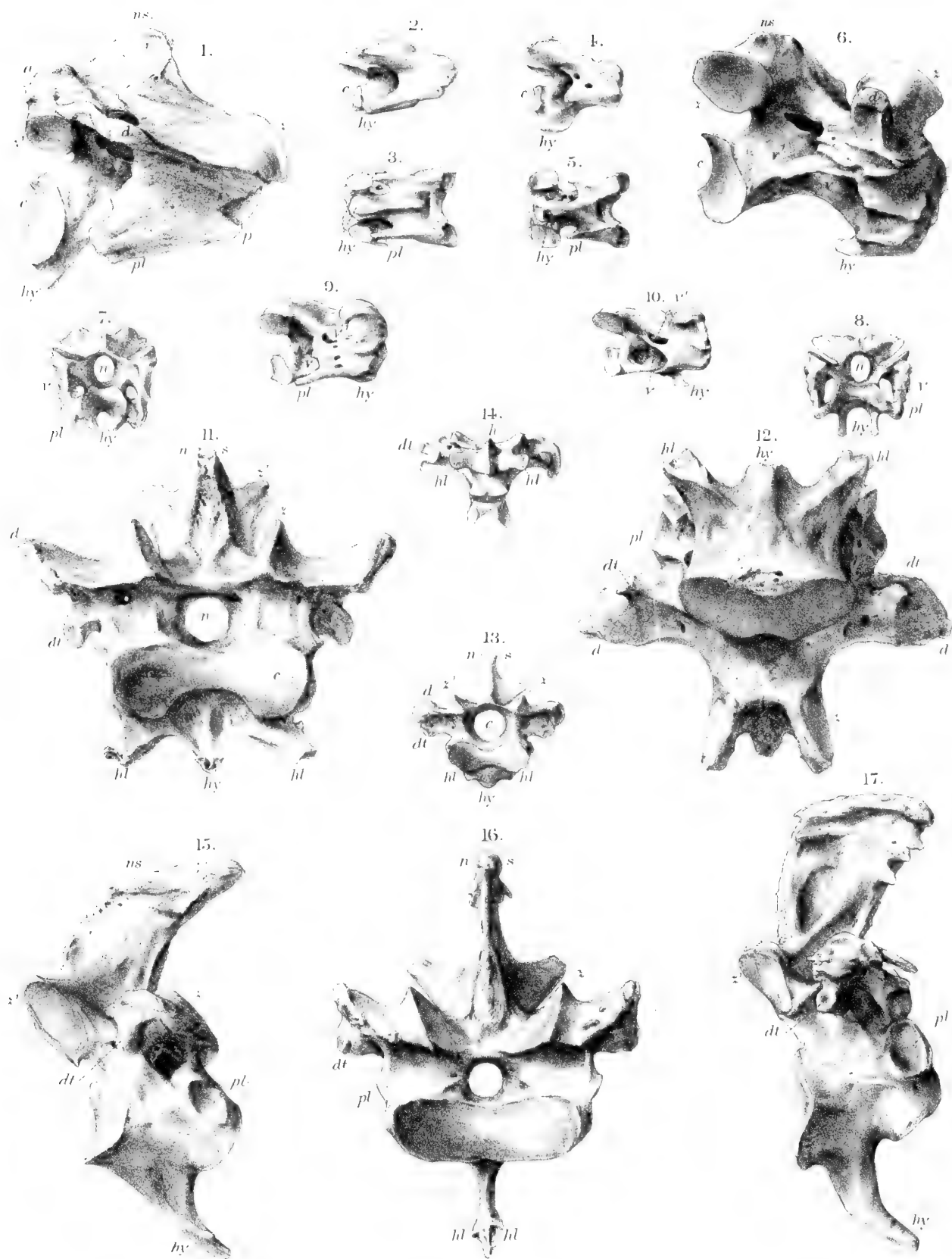


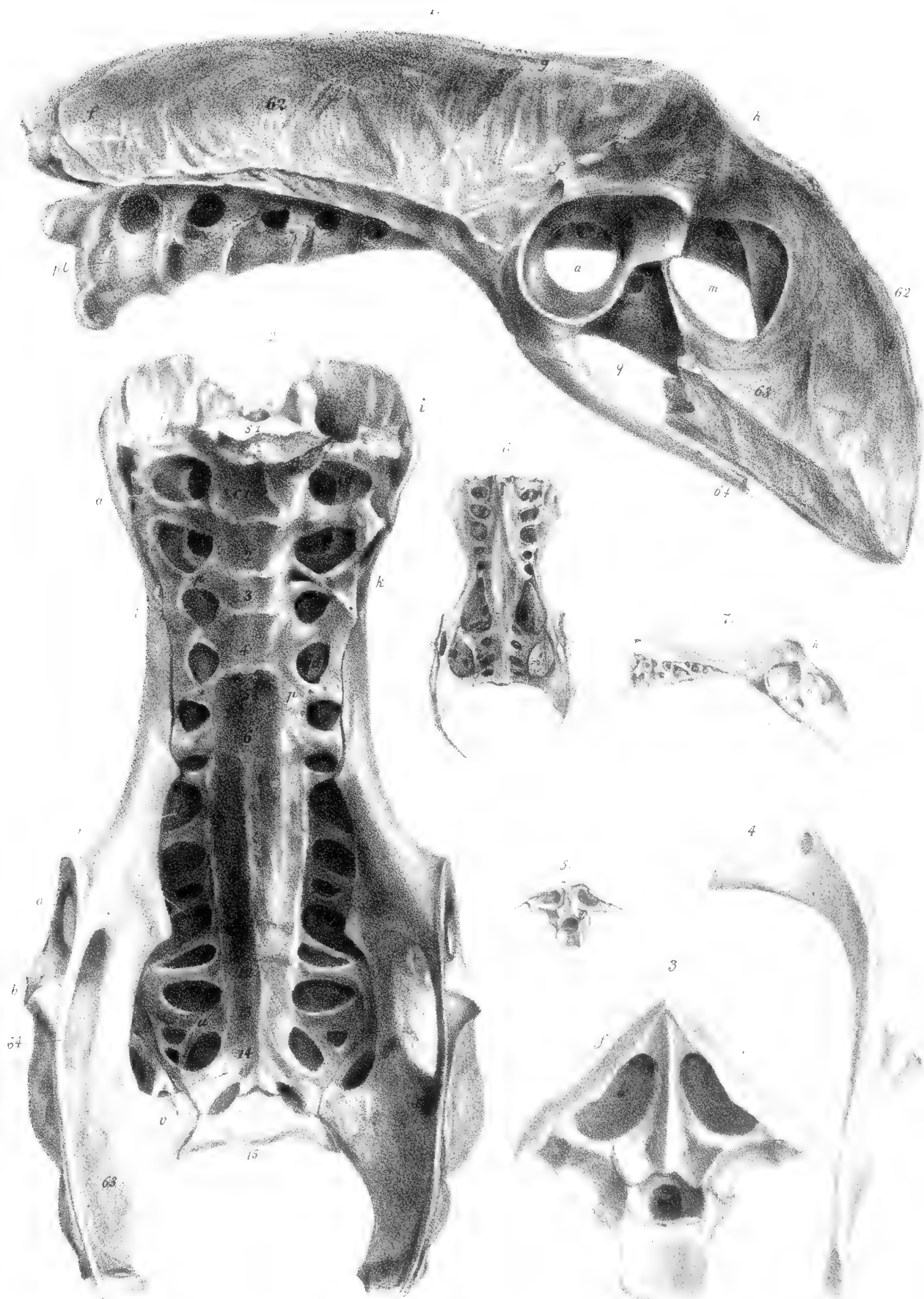
Fig. 1. DROMICRIS AUSTRALIS Fig. 2. DROMICRIS ELEPHANTOPUS Fig. 3.



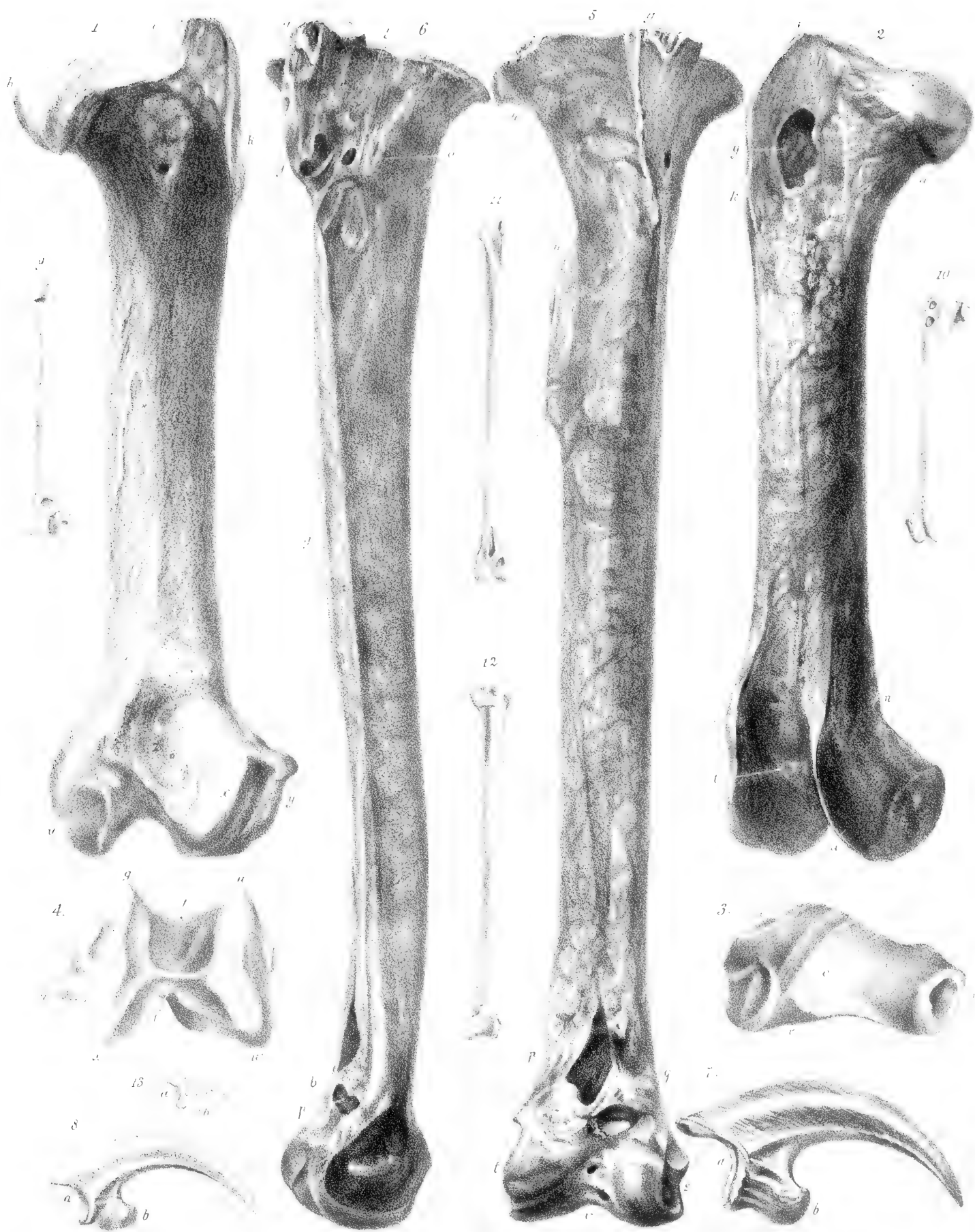














Wm. H. & Co.

PL. CIX

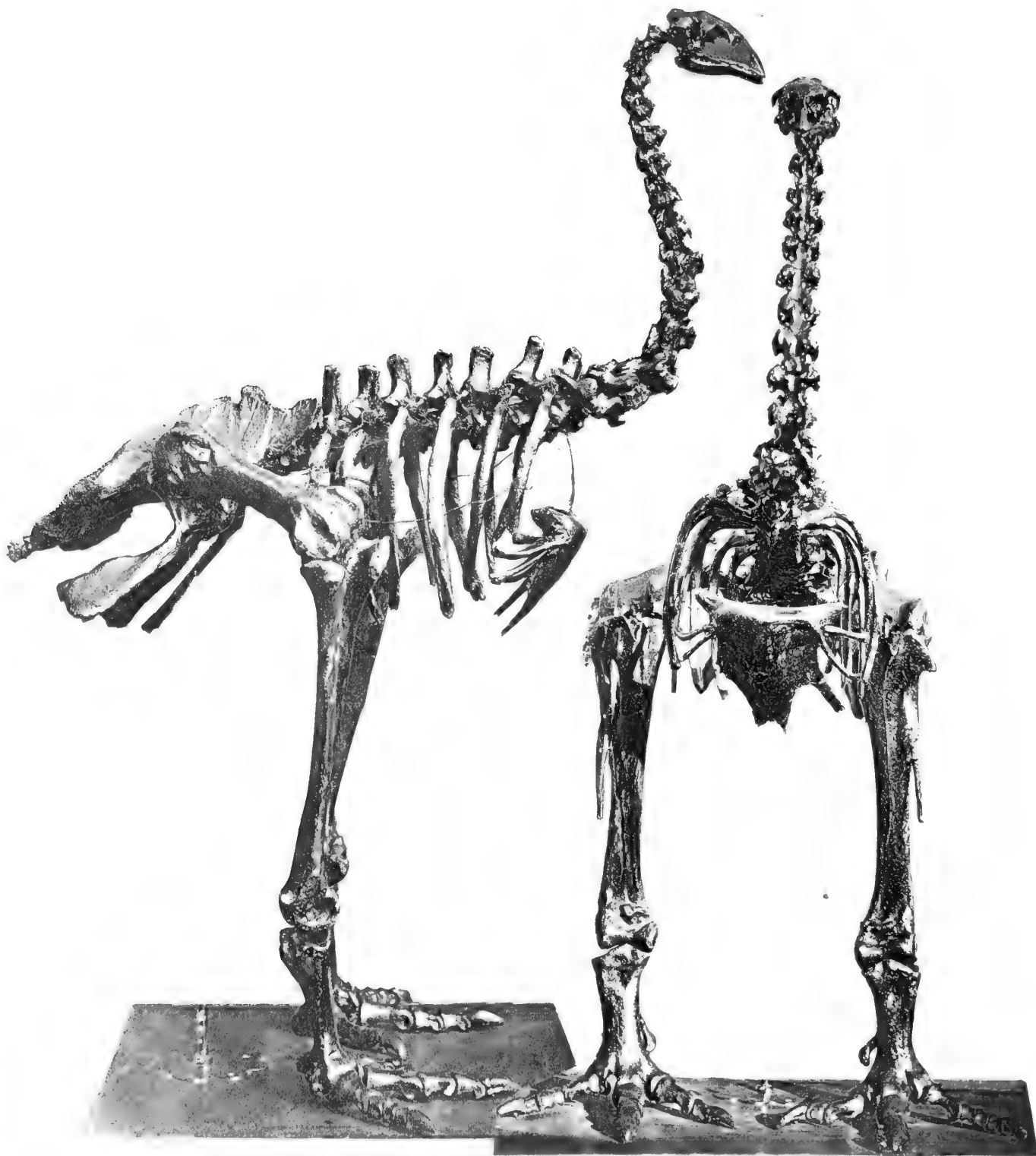
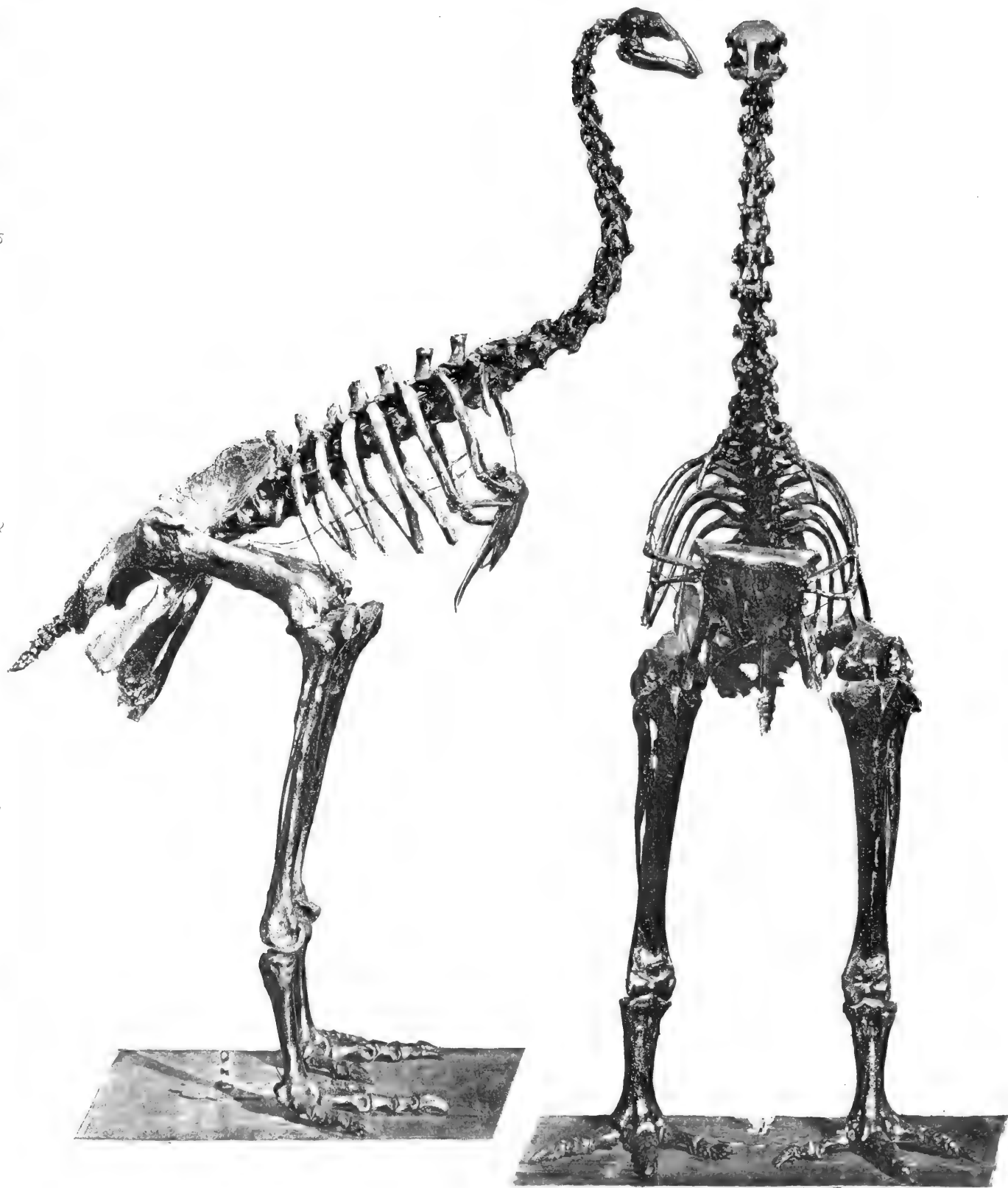




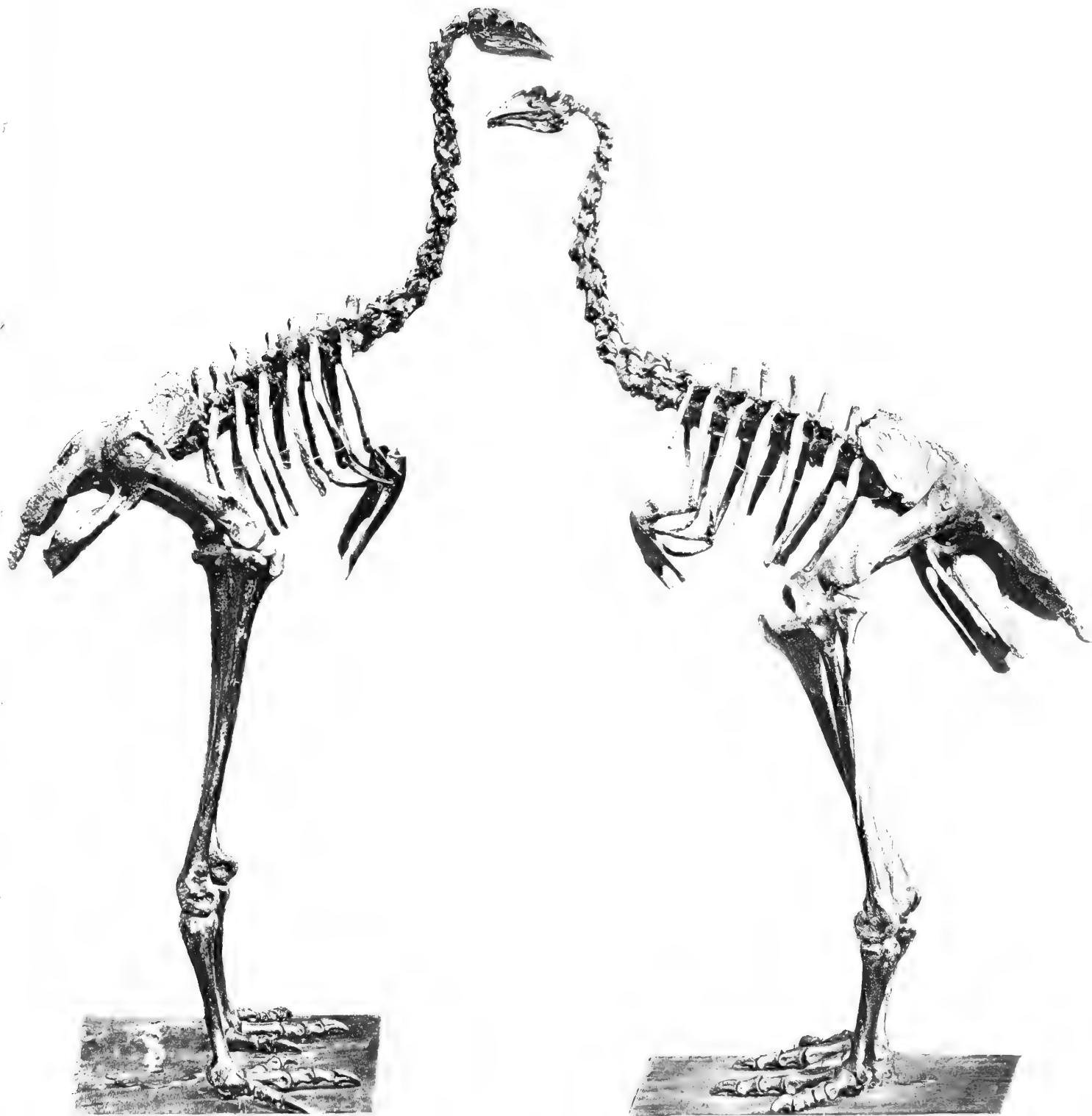
Photo gravure Goupil & C^{ie}

Imp^{re} Goupil & C^{ie}

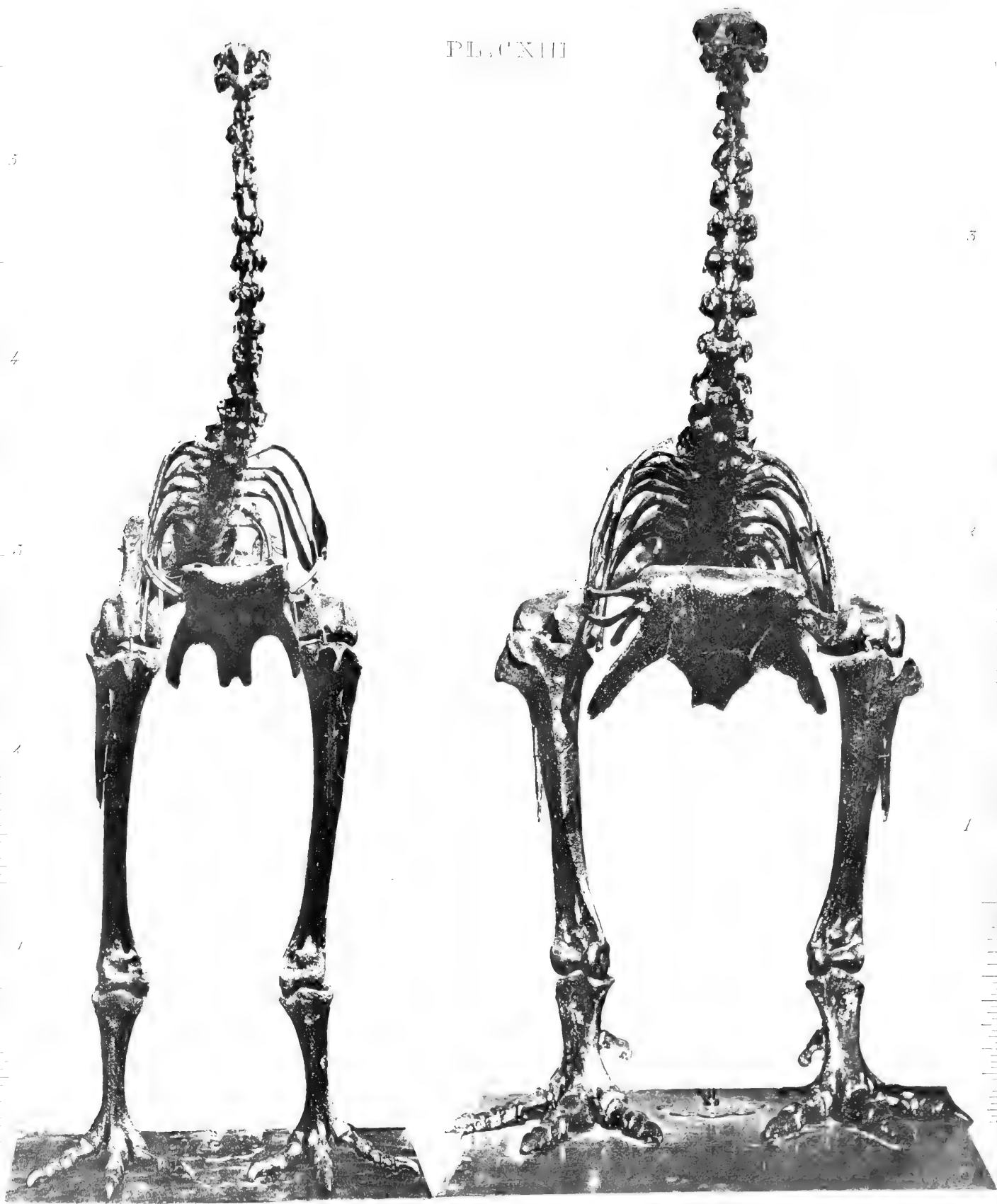
DINORNIS GRAVIS



DINORNIS DIOMEDEA



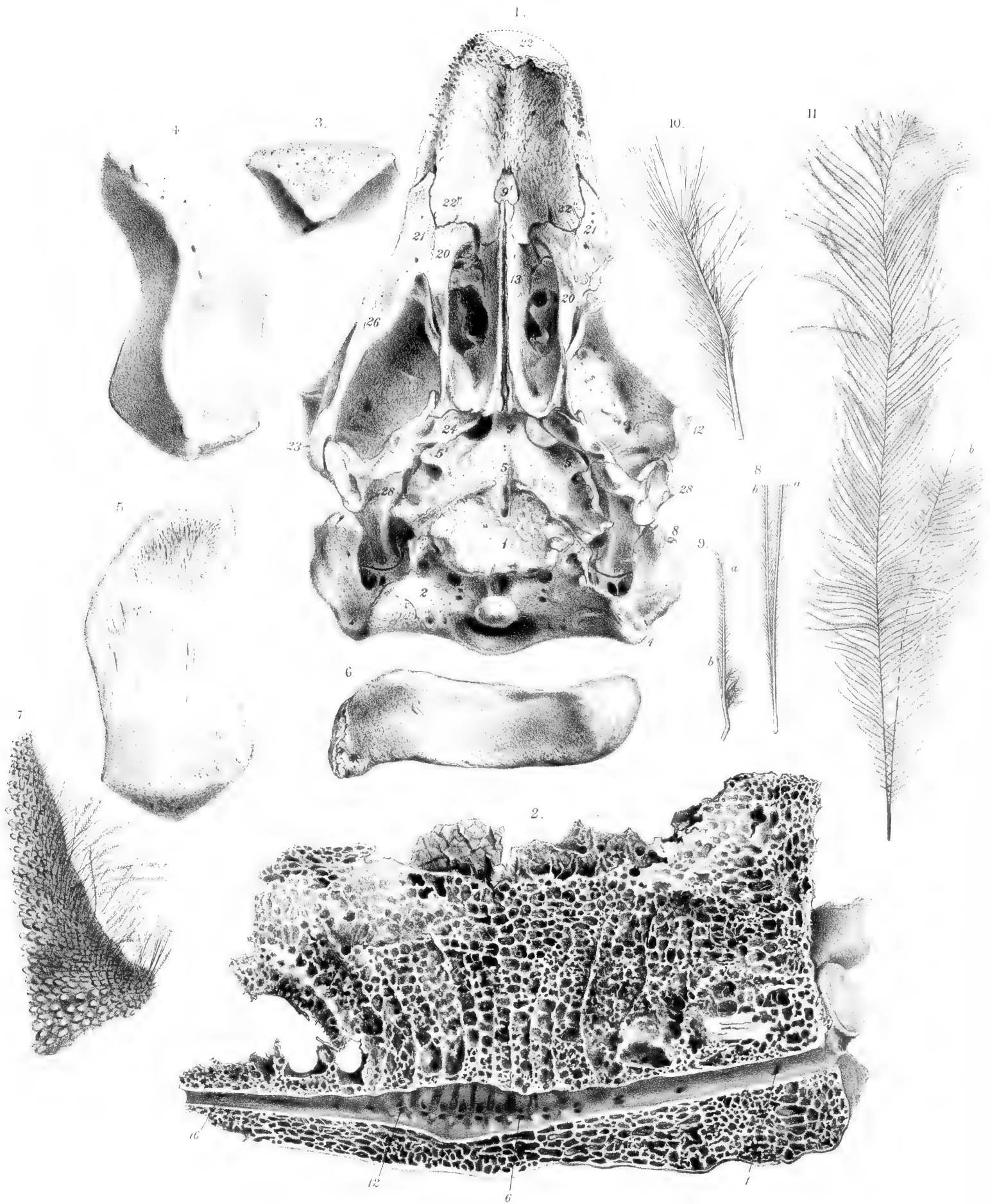
PL. CXXIII



A. GRASSUS

B. GRASSUS

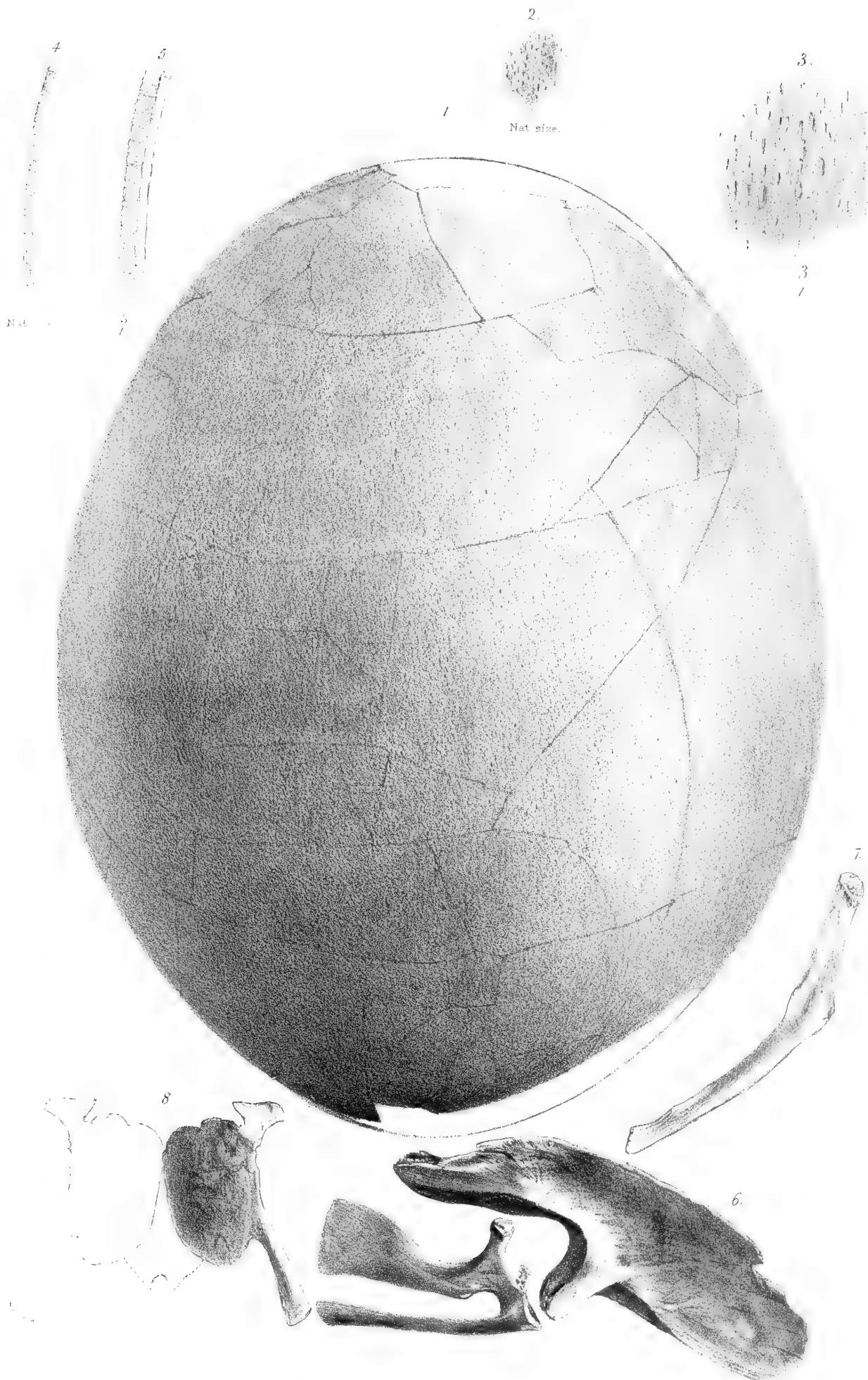
C. GRASSUS



Smitt del et lith

Hanhart imp.

DINORNIS CRASSUS D MAXIMUS.



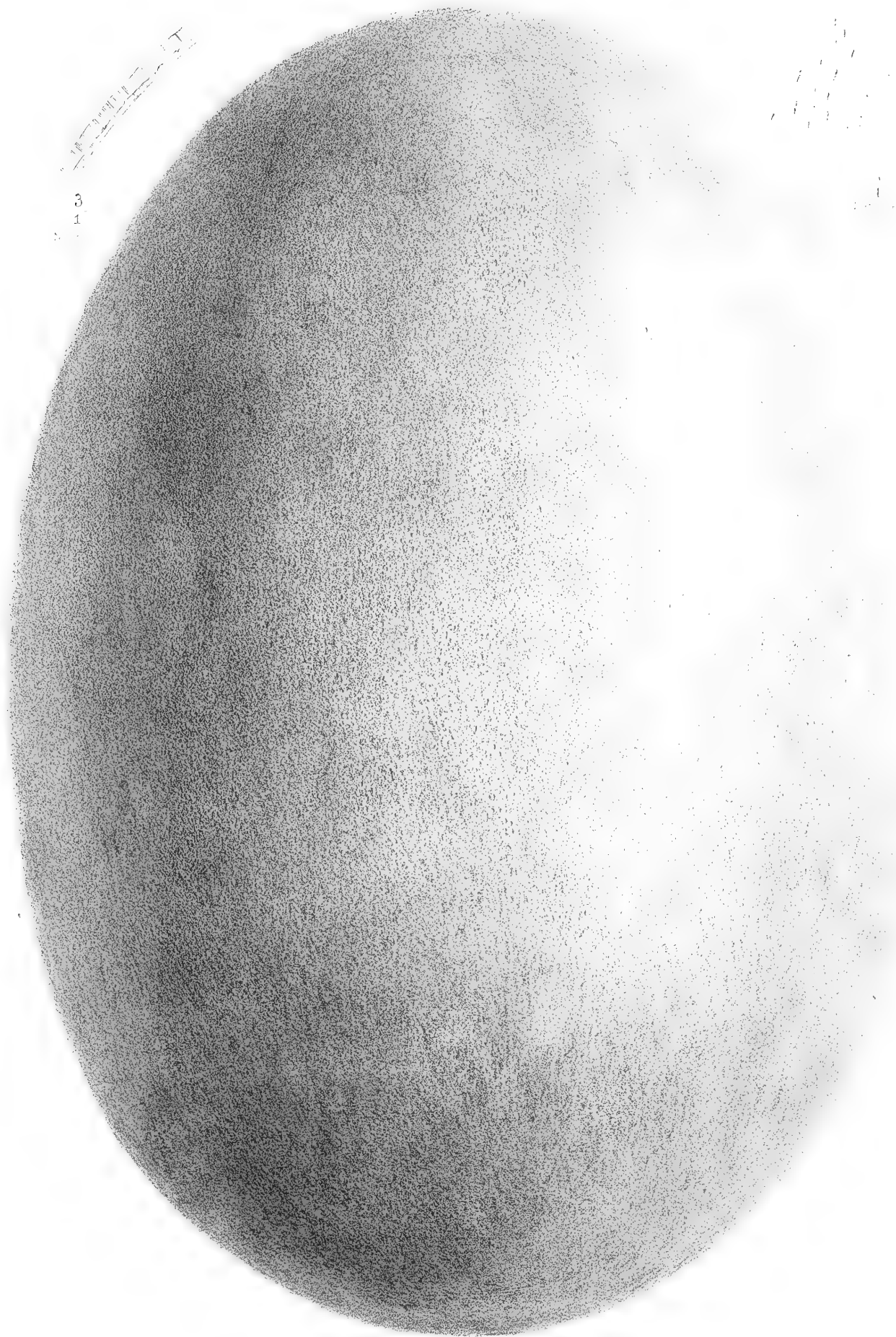
J. J. Reichen del et lit.

M & N. Hanhart imp

EGG OF DINORNIS CRASSUS



J. E. H. del et lith.



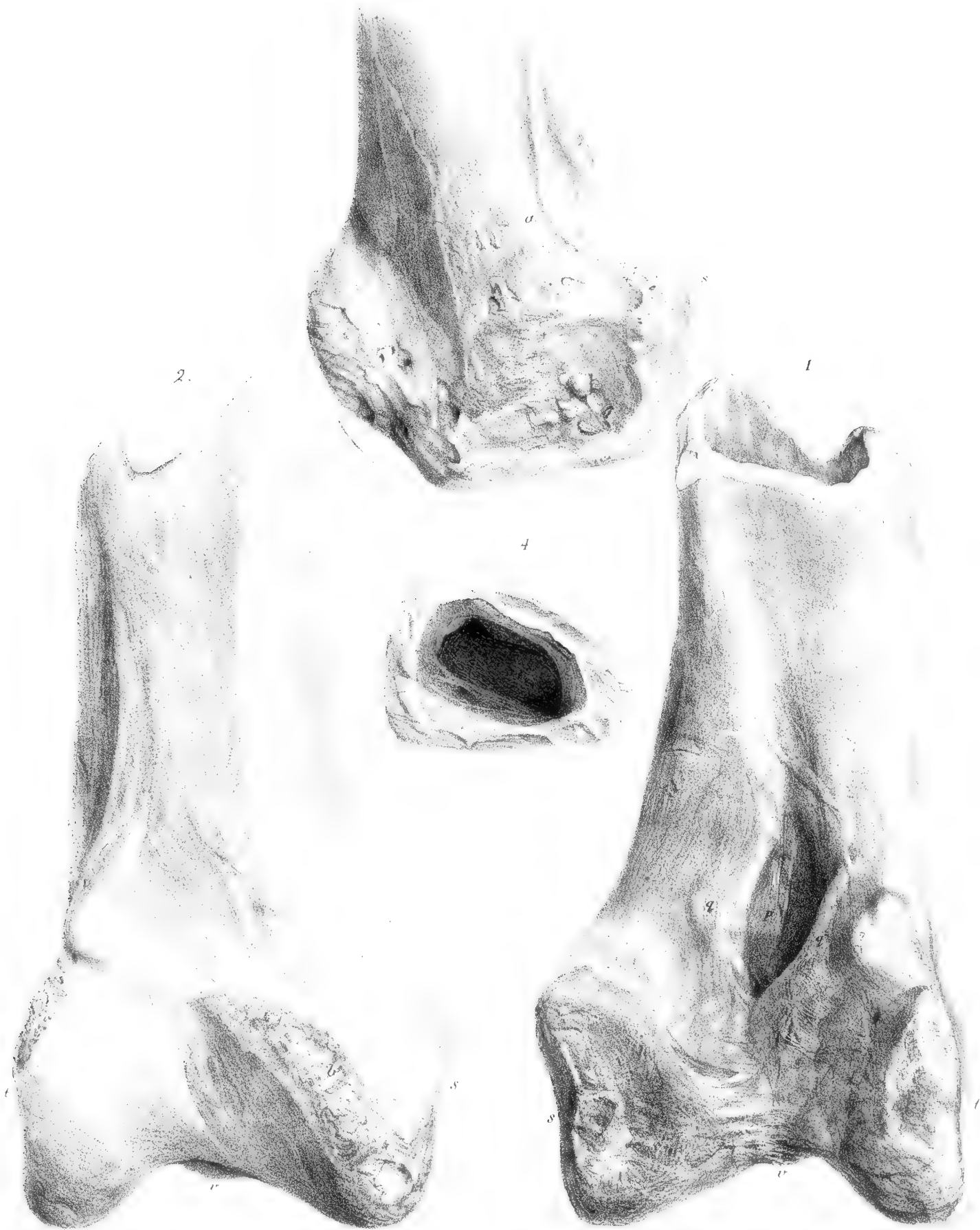
Not drawn by the eye

Nat size

M. & N. Hart, del.

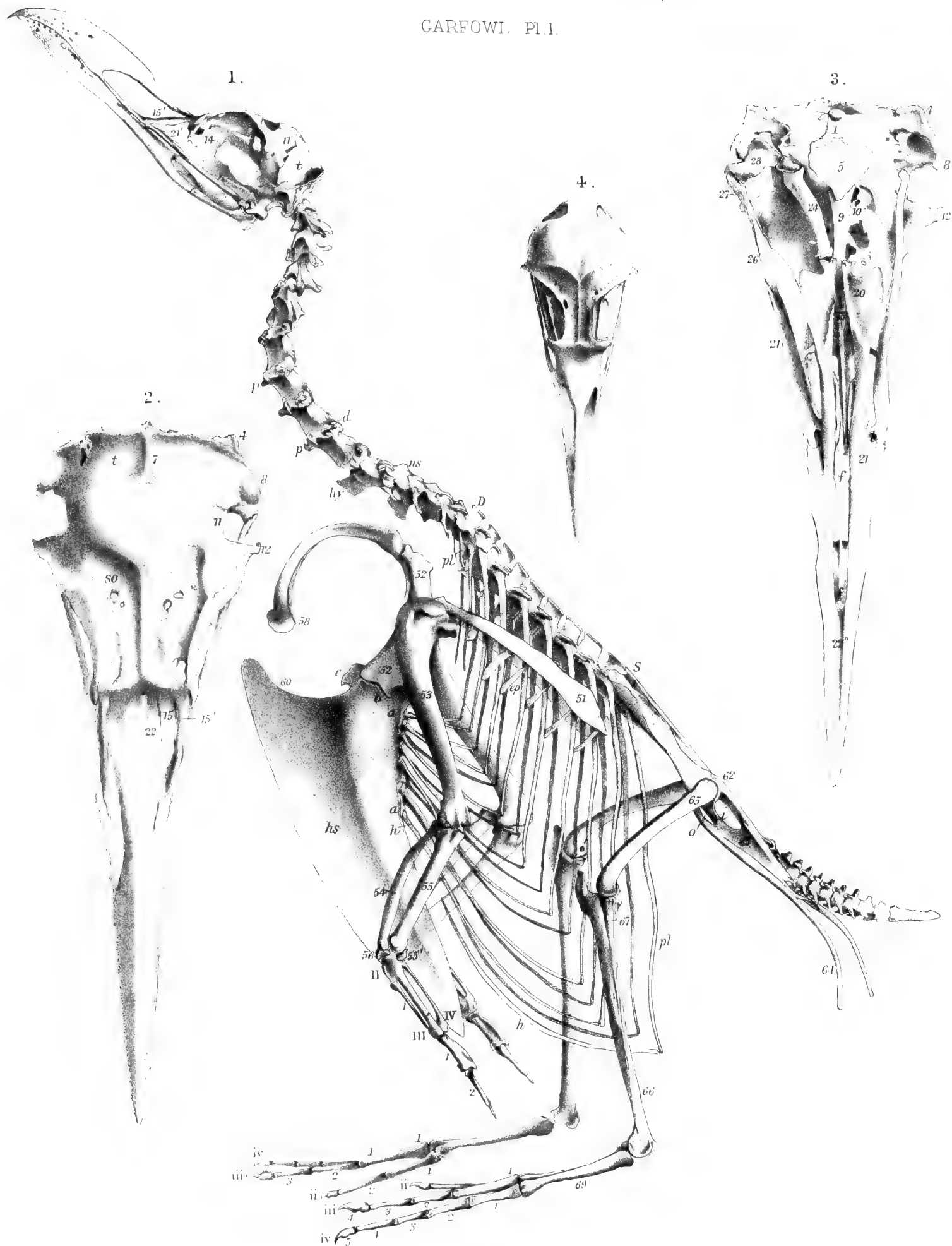
EGG OF PHOENIX. 1844.

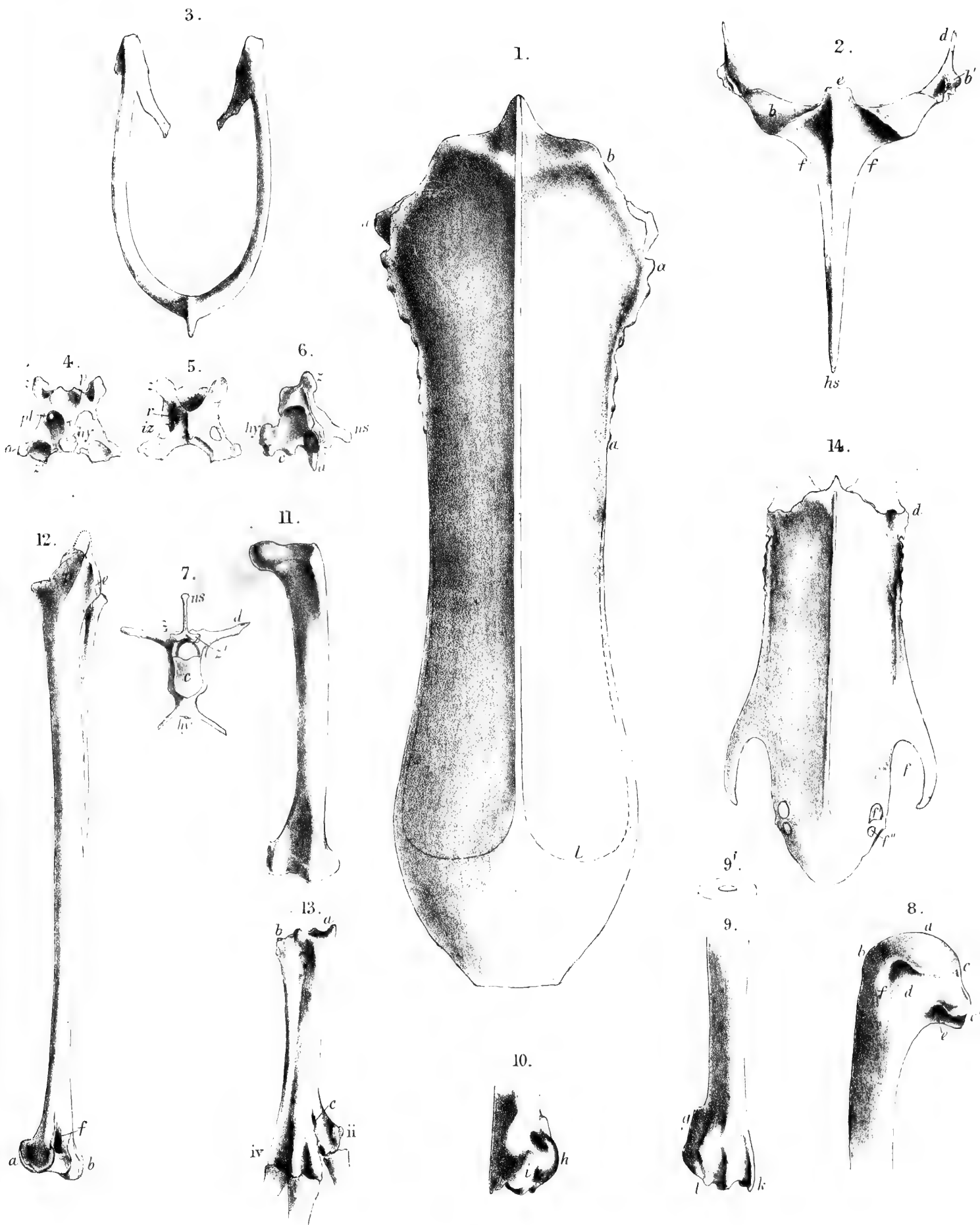
3.



1. Original, restored by J. Prother.

M. N. H. H. H. H. H.





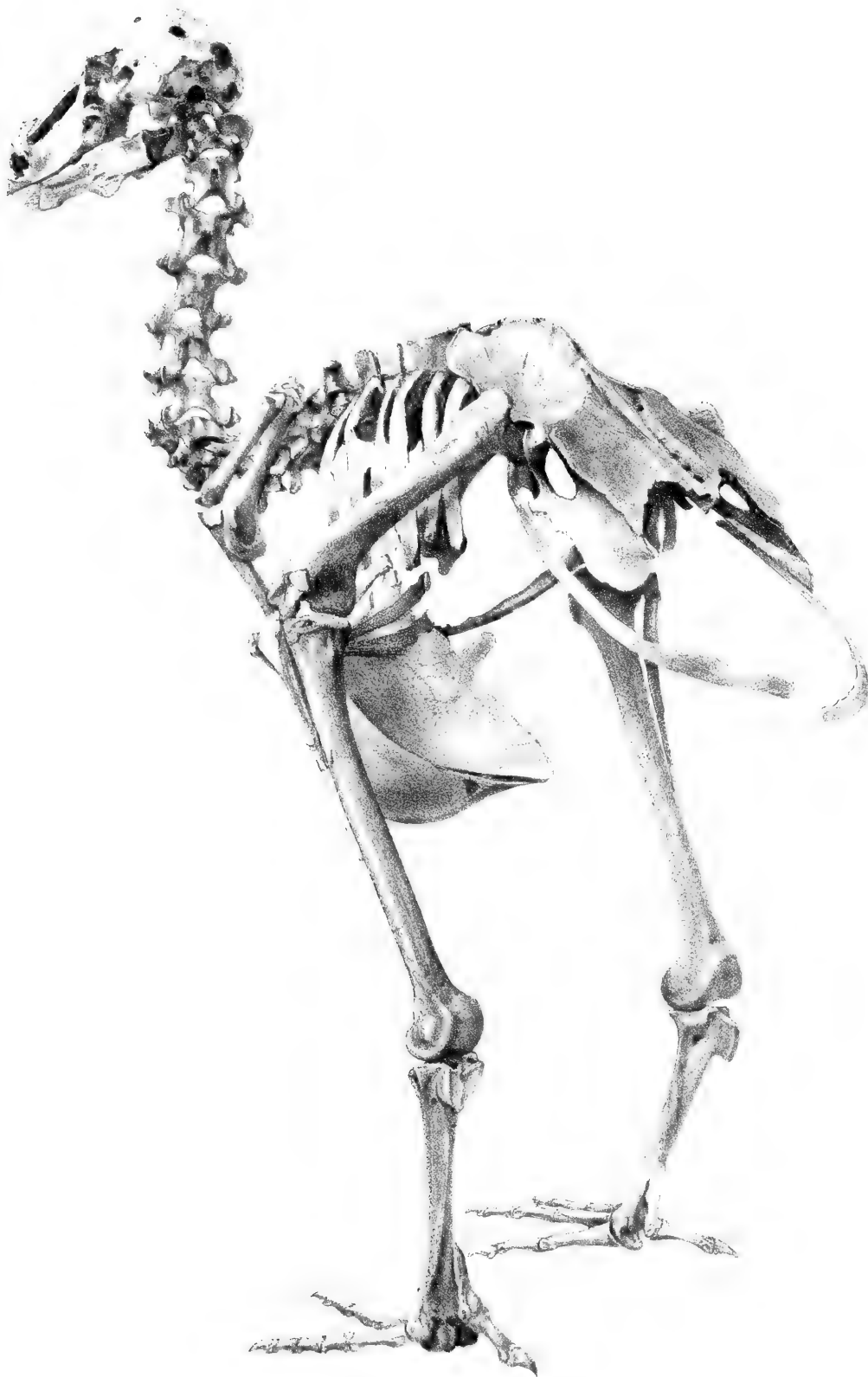
E.A. Smith, del. & lith.

W. West, imp.

FIGS. 1-13. ALCA IMPENNIS. FIG. 14. URIA GRYLLE.



$\frac{1}{3}$



$\frac{1}{3}$

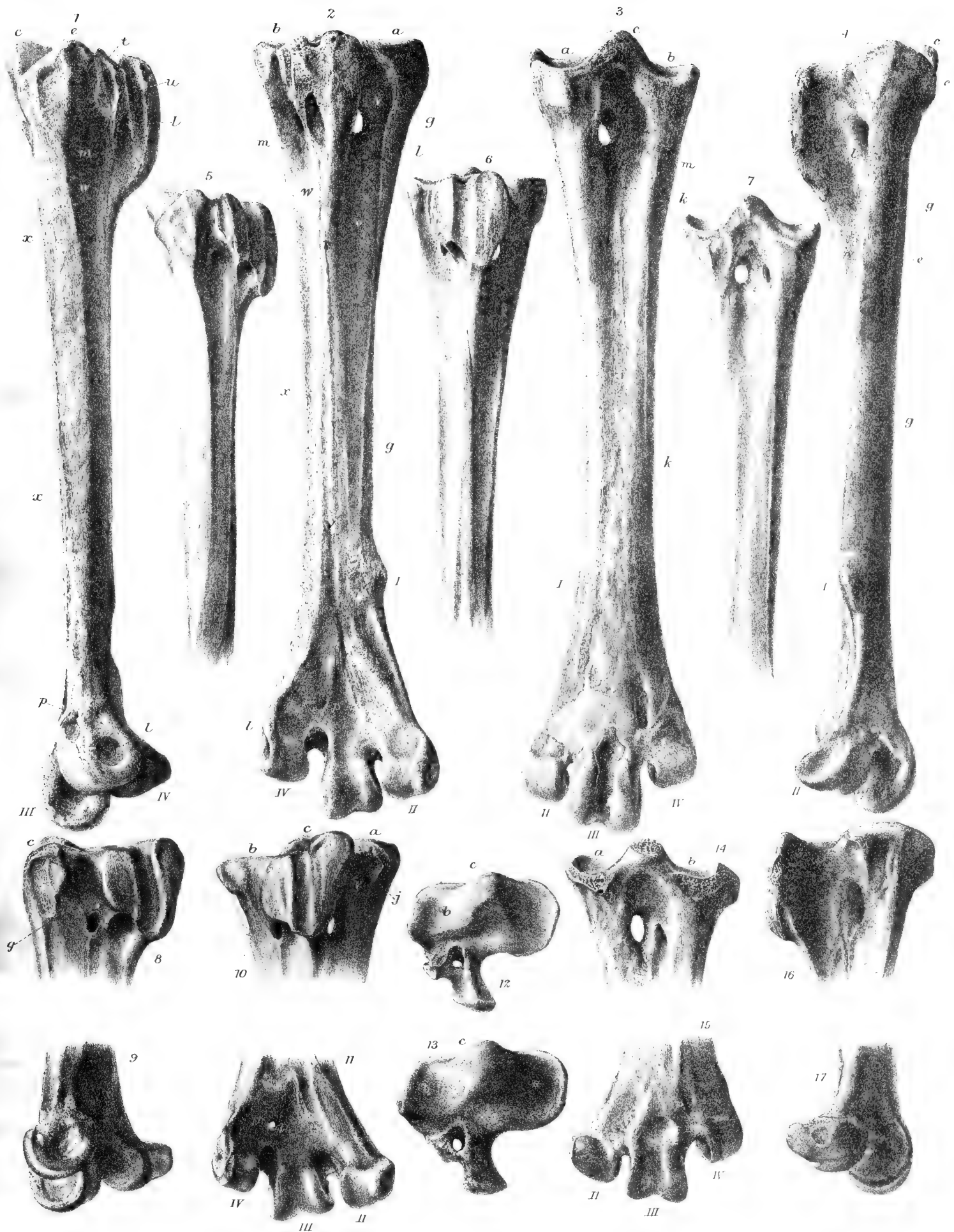


Fig. 1.

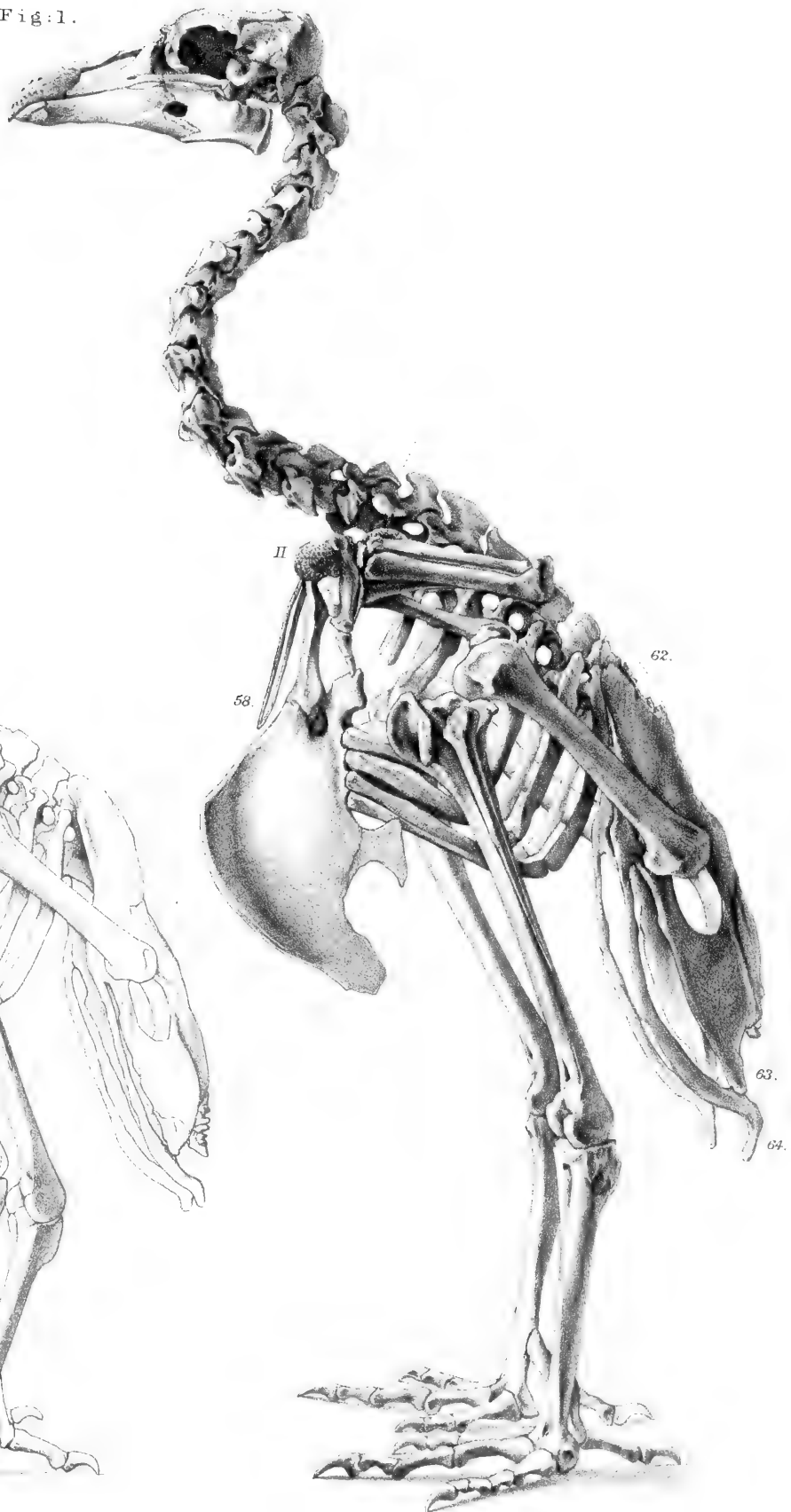
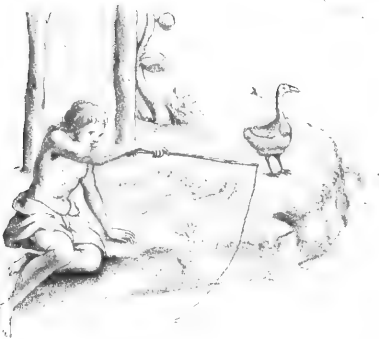


Fig. 2.



Fig. 3.



C.L. Griesbach.

Mintern Bros. imp.

PEZOPHAPS SOLITARIA.
Fig. 1. Male. 2 Female.

Fig. 1.



Fig. 2.

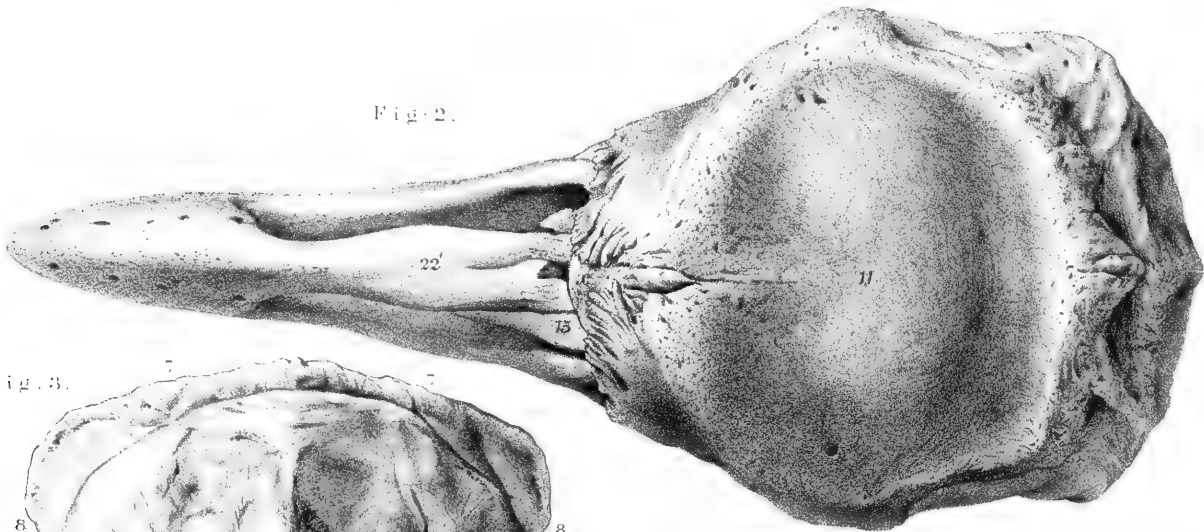


Fig. 3.

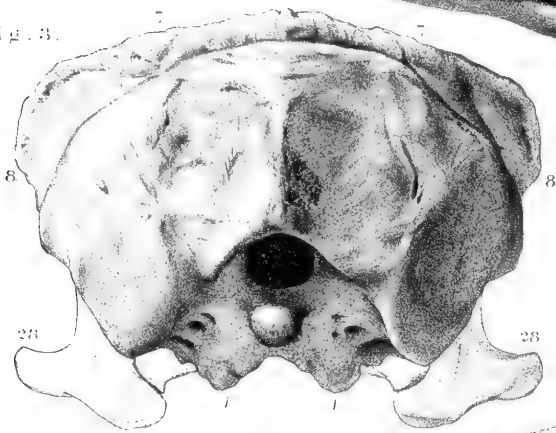


Fig. 4.

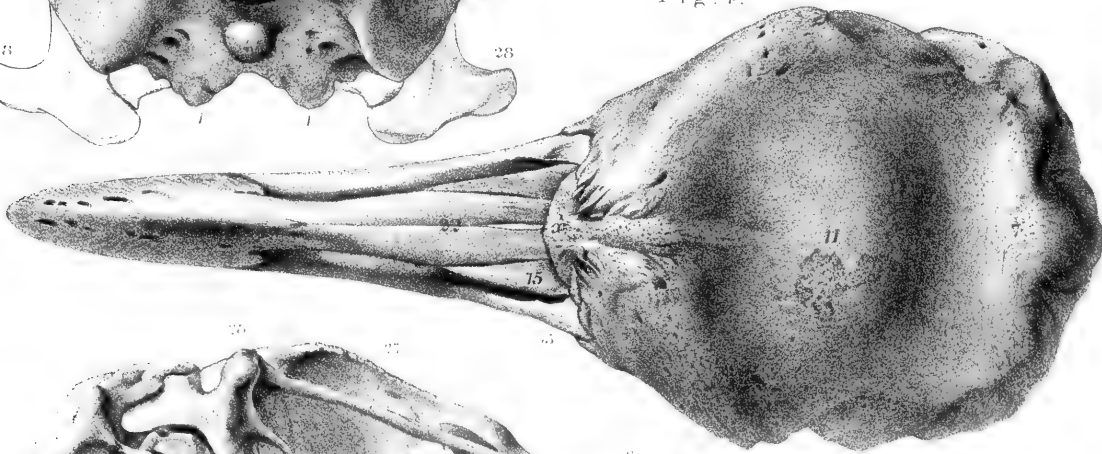
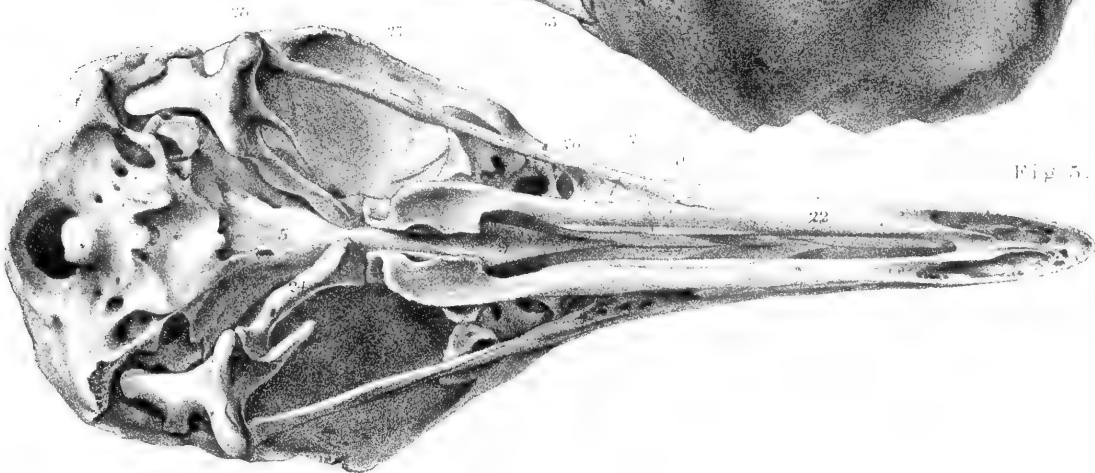


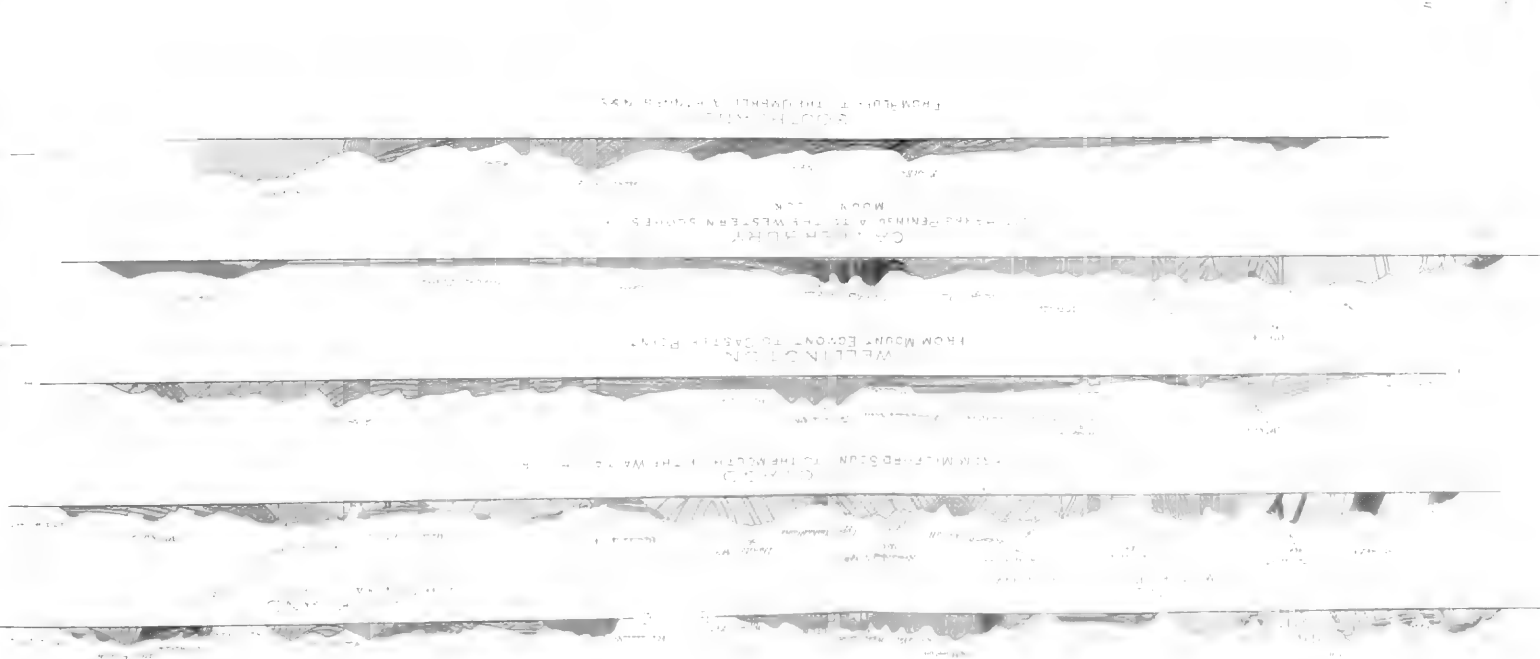
Fig. 5.



NORTH ISLAND



SOUTH ISLAND



EXPLANATORY SECTIONS.

SKETCH MAP
(1) — — — — —
GEOLOGY OF NEW ZEALAND

DEWEY FOR L.A.

150

